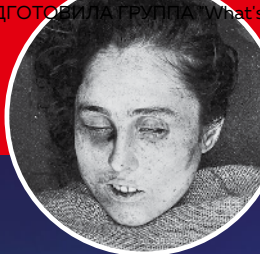


**CSI WHITECHAPEL**  
How Jack the Ripper fuelled forensic science

РЕЛИЗ ПОДГОТОВИЛА ГРУППА What's



**PIRATE QUEEN**

Ching Shih's rise from prostitute to swashbuckler of the South China Sea



# ALL ABOUT HISTORY CRUSADER KINGS

The 'holy' warriors that forged an empire in the Middle East



Richard the Lionheart, scourge of Saladin

Godfrey, Defender of the Holy Sepulchre

Baldwin IV, Jerusalem's Leper King



SPITFIRE PILOT SECRETS

**FANTASTIC FLYING MACHINES**



INSIDE THE HINDENBURG



PIONEERS OF FLIGHT

**PLUS**  
MANSA MUSA: HISTORY'S RICHEST MAN, THE ROUGH RIDERS' GREATEST BATTLE, MARGARET THATCHER'S LEGACY, BELLE ÉPOQUE PARIS, MAKING MOUNT RUSHMORE

ISSUE 069  
**Digital Edition**

FUTURE



VISIT...

LANZAROTE  
*Caliente*.COM





# OFFICIAL ARMISTICE CENTENARY 100<sup>TH</sup> ANNIVERSARY WWI MEN'S CHRONOGRAPH WATCH



Shown larger than actual size. Bezel measures 1.83 inches (4.7 cm) in diameter (including crown). Strap measures 10.11 inches (25.7 cm) in length (including buckle).

## PAY NOTHING NOW

### RESERVATION APPLICATION

**Please Respond Promptly**

To: The Bradford Exchange, PO Box 653, Stoke-on-Trent ST4 4RA

**YES!** Please reserve \_\_ (Qty) of the **OFFICIAL LEST WE FORGET 100<sup>TH</sup> ANNIVERSARY WWI MEN'S CHRONOGRAPH WATCH** for me as described in this advert.

**Complete today or Call 0333 003 0019**

Name (Mr/Mrs/Miss/Ms)..... (PLEASE PRINT)

Address.....

Postcode.....Telephone.....

Mobile.....

Email Address.....

Applicants must be aged 18 or over. Please note, we may contact you via mail, email and mobile with information about your reservation. For details of our privacy policy, please go to [www.bradford.co.uk/privacypolicy](http://www.bradford.co.uk/privacypolicy) or contact us at the above address or phone number.

**THE BRADFORD EXCHANGE**  
526-EAS01.01

Order Ref: P358239

**"IN FLANDERS FIELDS THE POPPIES BLOW,  
BETWEEN THE CROSSES, ROW ON ROW..."**

Blossoming across the fields in which countless brave men fought and died, the vibrant poppy inspired one of the world's most beloved poets, Major John McCrae, to compose his famed work; *'In Flanders Fields'*. After WWI ended on Armistice Day in 1918, the world rejoiced, but would never forget the effects of the first global conflict in history, or the sacrifices of each soldier, captured in McCrae's poem.

**Three precision chronograph  
dials with stop/start function**

**Rose gold-plated casing and  
genuine hand-stitched leather strap**

**Rose gold-coloured poppy, engraved  
soldier silhouettes and centenary tributes**

Now, the end of the Great War is commemorated by an elegant men's chronograph watch. The *Official Lest We Forget 100<sup>th</sup> Anniversary WWI Men's Chronograph Watch* is unique to The Bradford Exchange and officially endorsed by the Lest We Forget Association.

## LUSTROUS ROSE GOLD-PLATING AND GENUINE LEATHER

Expertly handcrafted, this precision Quartz movement timepiece showcases a rich rose gold-plated casing and a brown genuine leather strap with white hand-stitched detail. The textured face features classic numerals, three precision chronograph dials with stop-start function and tributes including a rose gold-coloured poppy and the sentiments: *'Lest We Forget'* and *'Never Forgotten'*. The casing reverse is engraved with laurel leaves of victory and soldier silhouettes.



Reverse is engraved  
with a silhouette  
of WWI's heroes

## NOT AVAILABLE ON THE HIGH STREET – ORDER YOURS TODAY!

This handsome WWI tribute will be accompanied by a custom-designed presentation case, a Certificate of Authenticity and our 120-day money-back guarantee. It is available for just 5 interest-free instalments of £25.99 – that's only £129.95 (plus £9.99 S&H)\*. Pay nothing now – complete and return your Reservation Application today!

This product has been endorsed by the Lest We Forget Association (charity number 1162122). © The Bradford Exchange. \* S&H - Shipping & Handling. Offer applies to UK only. A credit check may be carried out by a licensed Credit Reference Agency. Our guarantee is in addition to the rights provided to you by consumer protection regulations. 526-EAS01.01

## FASTEST WAY TO ORDER

[www.bradford.co.uk/wwicentenarywatch](http://www.bradford.co.uk/wwicentenarywatch)

Or call our 24hr hotline on **0333 003 0019**  
and quote reference code **P358239**



Take to the skies with  
our history of flight  
from page 14



# Welcome

When news of the fall of Jerusalem to Saladin's forces in 1187 reached the Vatican, Pope Urban III is said to have been so overwhelmed he had a heart attack and died. While Richard the Lionheart led thousands of men to reclaim it, the capture of the city also fired the imagination of Medieval bards in a way no other event had.

In an era that combined rising literacy with the early flowering of chivalry, an unprecedented burst of historical writing exploded in the Christian West. Numerous histories and epic poems glorified the knights of previous crusades. In his own lifetime, Richard I's rivalry with Saladin was also mythologised.

These stories have echoed down the ages and have continued to grip the Western imagination,

from Sir Walter Scott's romantic reimaginings in the 19th century to President George W Bush's disastrous use of the word 'crusade' to describe the war on terror after 9/11.

However, what is the true story of the Crusades? While the religious dimension of the conflict can't be denied, the real story is more complicated, and much more earthly, than most people recognise. Turn to page 30 to discover the roots of the holy wars, and the kings and queens that fought in them.



**Jack Parsons**  
Editor

## Editor's picks

60



**Made of money**  
Meet Mansa Musa, the African king whose wealth amazed the world, while his generous gift-giving crashed foreign economies.

78



**Scotland's lost empire**  
In 1698, the Scots sought to colonise Panama. Discover why the Darien Scheme not only failed, but cost Scotland its independence.

86



**Rough Riders, ho!**  
Explore the battle that made Teddy Roosevelt a household name, as he charged Spanish forces at San Juan Hill with a cavalry of cowboys.

**Be part of history** [historyanswers.co.uk](http://historyanswers.co.uk)  
Share your views and opinions online

[Facebook](https://www.facebook.com/AllAboutHistory) [Twitter](https://twitter.com/AboutHistoryMag)  
/AllAboutHistory @AboutHistoryMag



# CONTENTS

## CRUSADER KINGS

**30** Discover how and why 'holy' warriors forged an empire in the Middle East and fought for centuries to defend it

### AVIATION

#### 16 Timeline

From kites to supersonic jets, how we conquered the skies

#### 18 Inside history

What was it like to travel on the Hindenberg airship?

#### 20 Anatomy of

RAF Spitfire fighter ace

#### 22 How to

Pilot the Wright Flyer

#### 24 Day in the life

Fly solo across the Atlantic

#### 26 Hall of fame

History's greatest aeronauts

#### 28 History answers

Your questions answered



### FEATURES

#### 42 Pirate queen

Join Ching Shih's fearsome fleet, which ruled the South China Sea

#### 48 Resisting Rome

Meet the Celts that fought back against the ancient empire

#### 54 CSI: Whitechapel

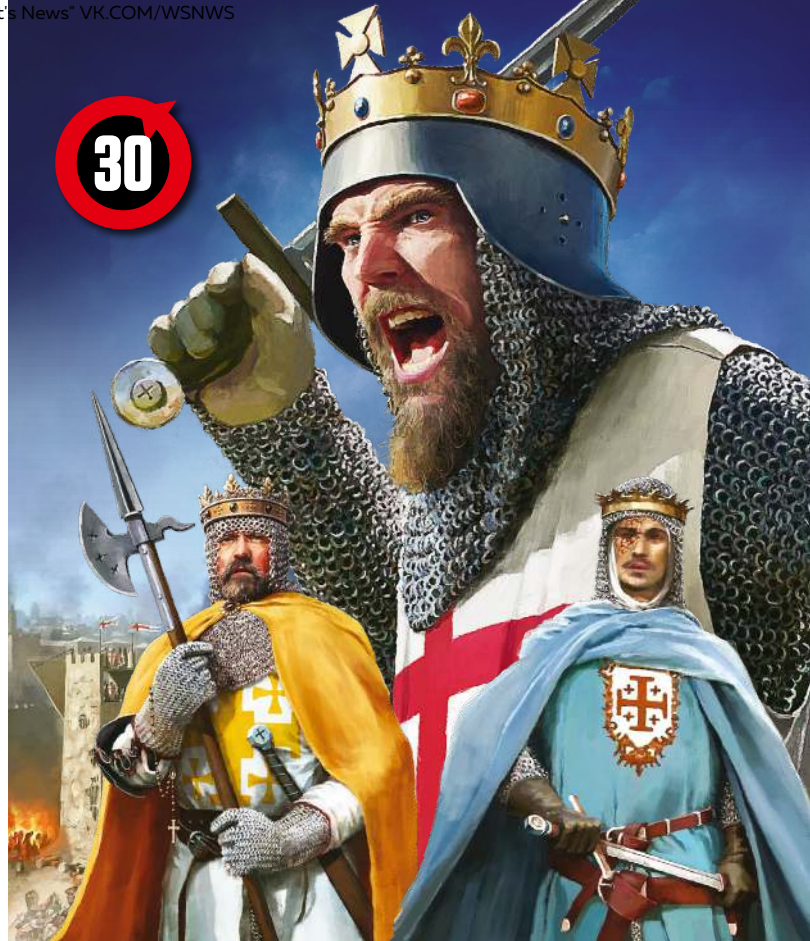
How were the latest forensic techniques employed in the hunt for Jack the Ripper?

#### 60 The richest man in history

Discover why Mansa Musa's fabulous wealth remains unrivalled to this day

#### 66 Mount Rushmore: Shrine of democracy

Explore the making of a national monument in pictures







80

## 74 What if

If the Nazis had captured Moscow, Europe would have fallen - but Pearl Harbor might have been saved



42



48



54



66

# WIN!

£100 worth of  
history books

72

# EVERY ISSUE

## 06 History in pictures

Photos with amazing stories

## 78 Bluffer's guide

The Darien Scheme explained

## 80 Hero or villain?

What is the lasting legacy of Margaret Thatcher?

## 84 Time traveller's handbook

What to see and do when visiting France's Belle Époque

## 86 Greatest battles

Explore the Rough Riders' victory at San Juan Heights in-depth

## 91 On the menu

Make your own mooncakes

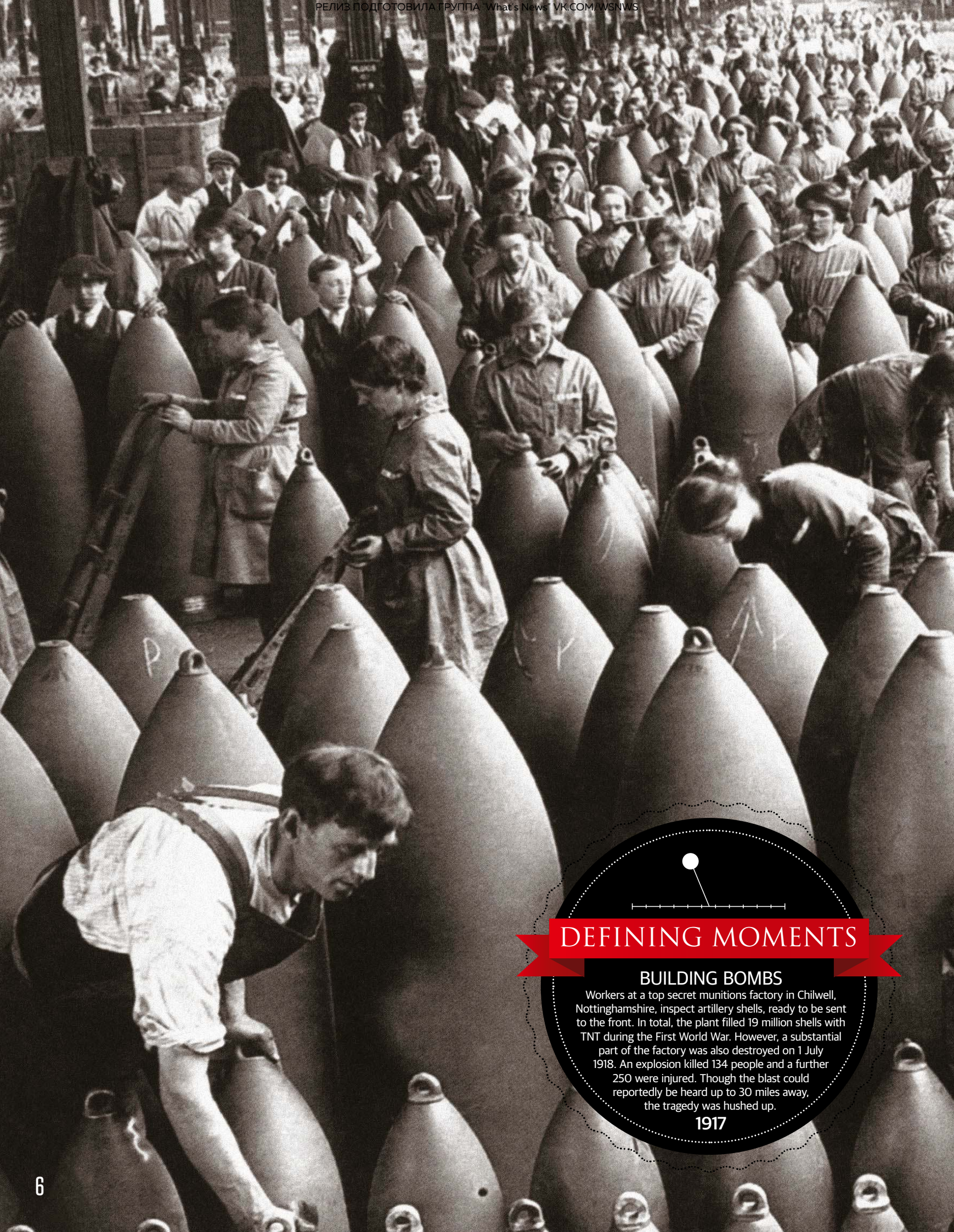
## 92 Reviews

Our verdict on the latest nonfiction books, novels and films

## 97 History vs Hollywood

Does Helen Mirren's *Woman in Gold* get creative with the truth?





## DEFINING MOMENTS

### BUILDING BOMBS

Workers at a top secret munitions factory in Chilwell, Nottinghamshire, inspect artillery shells, ready to be sent to the front. In total, the plant filled 19 million shells with TNT during the First World War. However, a substantial part of the factory was also destroyed on 1 July 1918. An explosion killed 134 people and a further 250 were injured. Though the blast could reportedly be heard up to 30 miles away, the tragedy was hushed up.

1917













## DEFINING MOMENTS

### THE QUEEN OF SOUL

The music legend Aretha Franklin, best known for the anthem *Respect*, earned nothing but in a career that spanned nearly 60 years. Famed for her powerful voice, Franklin became a breakout star in 1966 after signing with Atlantic Records. Within two years, she was renowned throughout America and Europe as 'Lady Soul'. However, her vocal achievements have informed many other genres, including gospel, R&B, dance and rock.

1969





## DEFINING MOMENTS

### EXILED BY THE TSAR

Russia has a long history of exiling political prisoners and petty criminals to eastern Siberia, however this accelerated after the assassination of Tsar Alexander II in 1881, when the autocratic state decided to crack down on dissent. Up to 10,000 men and women were banished to the harsh wilderness each year throughout the 1890s. Here they lived in squalid prisons and performed hard labour, such as mining and building the Trans-Siberian Railway.

1885









## DEFINING MOMENTS

### CHECKMATE

Garry Kasparov considers his next move as he trains for his rematch with IBM's supercomputer Deep Blue. The world chess champion scoffed at the idea that a machine could defeat him, so was shaken when he lost the first round of the match in 1996, though he ultimately triumphed. In a rematch the following year, Kasparov started well, but Deep Blue dominated the second game. A visibly distressed Kasparov stood up and walked away, forfeiting the match.

1997





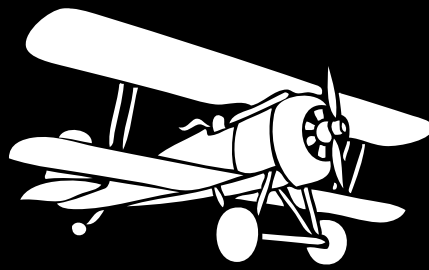


***“If you can walk away from a landing, it’s a good landing. If you can use the airplane the next day, it’s an outstanding landing”***

**Chuck Yeager, US Air Force test pilot**



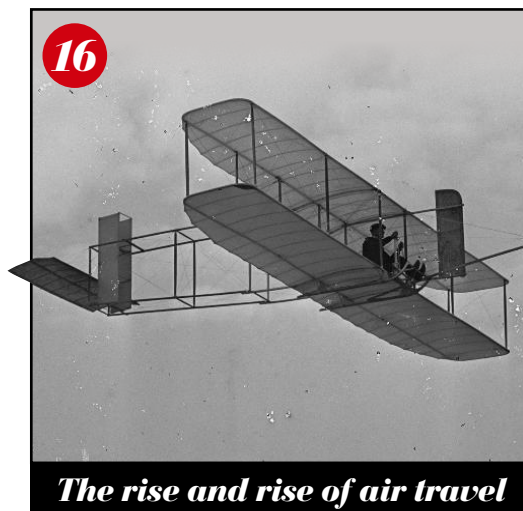




# ALL ABOUT

# AVIATION

From Leonardo da Vinci's earliest sketches to Concorde breaking the sound barrier, discover how flying aces conquered the skies



*The rise and rise of air travel*



*Inside the Hindenberg*



*Spitfire pilot essentials*



*History's greatest flying aces*

Written by David Crookes, Jessica Leggett



# Up, Up and Away

From kites to jet engines, the human quest for flight has been thousands of years in the making

## ANCIENT AVIATION

Invented in China during the Warring States period, kites were mainly used for military purposes, such as communication, measuring distances and calculating wind readings. They eventually spread throughout Asia and remain popular to this day.



## FULL STEAM AHEAD

While the inventor Daedalus and his high-flying son Icarus were mythical, the real-life Ancient Greek engineer Hero of Alexandria developed the aeolipile, a primitive steam turbine that used similar principles to today's jet propulsion.



C. 400 BCE

50 CE

## THE HINDENBURG DISASTER

The German zeppelin exploded in Lakehurst, New Jersey, killing 35 people on board and one person on the ground. With photographs, news footage and eyewitness reports of the tragedy widely shared, the dreams of airship travel quickly ended.



## ADVANCING AVIATION

During World War I, aerial warfare became more important than ever. Initially unarmed, aeroplanes started to carry machine guns and even explosives, while new types of aircrafts such as night bombers emerged.



At the beginning of the war, aeroplanes were mainly used for reconnaissance purposes

## WORLD'S FIRST COMMERCIAL AIRLINE

**3 MONTHS**  
The St. Petersburg-Tampa Airboat line did not last long



Number of people who gathered to watch the airline's inaugural flight

**3,000**

A passenger ticket cost \$5 each way



## FLIGHT AND FIGHT

The first ever aerial bombing took place against Libya by Italian lieutenant and pilot Giulio Gavotti during the Italo-Turkish War, marking the beginning of aerial warfare.



1937

1914 - 1918

1914

1911

## THE BATTLE OF BRITAIN

**1,000**

Approximate number of German aircraft that headed to London on the first day of the Blitz

Number of aircraft lost by the Allies

**1,547**

**1,887**

Number of aircraft lost by the Germans



## THE FIRST JET FIGHTER

Nazi Germany hoped that the Messerschmitt Me 262, one of the most advanced aircraft of World War II, would turn the tide of the war in their favour - but it was introduced too late and insufficient numbers were made to make a difference.



## SPEED AWAY

US Air Force Captain Chuck Yeager becomes the first human to fly faster than the speed of sound and therefore break the sound barrier. He went on to break several more speed records during his career.



1940 - 1941

1941

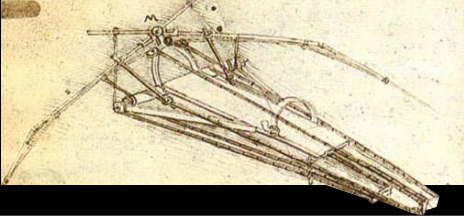
1947



Da Vinci produced a sketch for an aerial screw, the predecessor to the helicopter

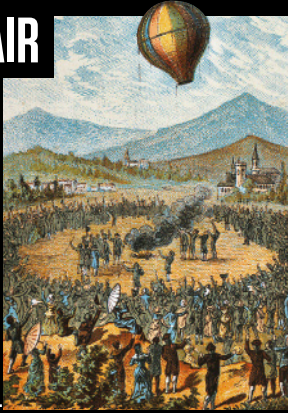
## FLIGHT OF FANCY

Leonardo Da Vinci was fascinated with aviation. He sketched designs for an ornithopter, a flying machine where the pilot would lie in the prone position and used a crank to control a rod and pulley system to move the wings.



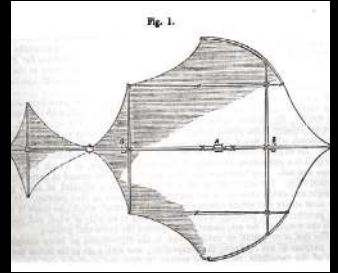
## UP IN THE AIR

French chemistry teacher, Jean-Francois Pilatre de Rozier completed the first manned hot air balloon flight, before a crowd of dignitaries in Annonay, France, in the aircraft developed by the Montgolfier brothers.



## GLIDING ACROSS THE SKY

Sir George Cayley spent over 50 years on aeronautical experiments, notably on his gliders, determined to find a way for humans to fly and was the first person to conceptualise the modern airplane with a fuselage, wings and a tail.



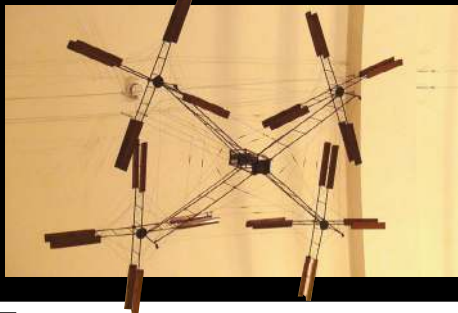
1485

1783

1799 - 1850

## PROPELLED INTO ACTION

The Breguet-Richet Gyroplane I lifted off the ground for the first time in September. Built by brothers Louis and Jacques Breguet alongside Professor Charles Richet, it was considered the first manned flight of a helicopter.



## MAKING HISTORY

After working towards it for several years, the Wright brothers completed the first successful, controlled and sustained flight of their biplane, the Wright Flyer, on Kitty Hawk Beach, in North Carolina.



## THE SIEGE OF PARIS

66

Number of hot air balloons that flew out of Paris during the siege of city by Prussian forces

2.5-3 MILLION

Approximate number of letters carried by the balloons

110

Number of passengers who also boarded the balloons



1907

1903

1870

## REACHING NEW HEIGHTS

When the Soviet Union launched Sputnik 1, the first man-made satellite to orbit the Earth, it proved that the sky was no longer the limit for aviation.

Sputnik's launch sparked the Space Race between the United States and the Soviet Union, leading to the Moon landings



## CONCORDE TAKES OFF

The supersonic aircraft had a take-off speed of

250MPH

It had a cruising speed of

1350MPH

more than twice the speed of sound

3.5 HOURS

The time it took for Concorde to fly from London to New York



## NEW INNOVATIONS

The Solar Impulse 2 became the first solar-powered aircraft to successfully circumnavigate the globe in just over 16 months, demonstrating the viability of renewable energy for aviation.



In 2017, Google co-founder Larry Page funded a prototype for an all-electric flying car, named the Kitty Hawk

1957

1976 - 2003

2015





# HINDENBURG

GERMANY, 1931-1937

The LZ 129 Hindenburg was the largest passenger aircraft that has ever taken to the skies. This jaw-dropping feat of German engineering was 245 meters long (803 feet) and usually took off weighing 210,000 kg (232 tons), powered by four diesel engines adapted from the latest motor torpedo boats.

Marketed as the 'hotel of the sky', the airship was designed to carry up to 70 passengers in luxury and comfort. There was a restaurant, lounge, cocktail bar and, perhaps most surprisingly, a smoking room. Walls were lined with silk painted scenes of great historic voyages and exotic locales, while its furnishings were in an ultra-modern Bauhaus style.

While its cabins were small they were equal to that of an ocean liner or sleeper car. From 1936 onwards, the airship carried the rich and famous from Frankfurt to Rio de Janeiro, in Brazil, and New Jersey, in the United States.

Although the Hindenburg was in development before the Third Reich came to power, the Nazis quickly coopted it for their own means. Propaganda minister Joseph Goebbels insisted the Hindenburg's maiden voyage should be in March 1936, so it could rally support for a referendum rubber-stamping the reoccupation of the Rhineland. For four days, the dirigible travelled Germany, blaring patriotic music and pro-Hitler announcements from loudspeakers, while leaflets were scattered over cities. The Hindenburg also had a starring role in the opening ceremony of the 1936 Berlin Olympics.

Today the Hindenburg is best remembered for its catastrophic demise. On 6 May 1937, the colossal zeppelin burst into flame as it came into dock at an airfield in Lakehurst, New Jersey. Thirty-five of the 97 people on board were killed, plus a member of the ground crew. The disaster was covered by Herbert Morrison's eyewitness radio report exclaiming, "Oh, the humanity!"

The cause of the fire was likely a build up of static in the ship's gasbags, which were filled with highly flammable hydrogen.

Deck A

## Dining room

Passengers dined in the restaurant room on the top deck, which occupied the length of the port side. Guests sat at tables and chairs made from lightweight tubular aluminium, with these seats upholstered in red. Like the lounge there was also an observation promenade with large, slanted windows.

## Passenger cabins

With journeys often taking several days, passengers needed somewhere to rest their heads. Comparable to a sleeper compartment on a train there were 25 double-berthed cabins on A-Deck accommodating 50 passengers. After its inaugural 1936 season, nine more cabins were added on the below deck, accommodating an additional 20 passengers. While furniture was made from aluminium each cabin also came with plastic washbasins, a shallow closet and a fold-out desk.

## Lounge area

The starboard side of the airship was dominated by a 10 metre (34 feet) long lounge area where passengers could enjoy a pianist playing a baby grand piano made from the same alloy as the ship's struts, but covered in a decorative yellow pigskin. The lounge also boasted an observation window, while a cornered off area acted as 'quiet zone' with writing desks as well as newspapers and books to read.

## Control car

To reach the control car located at the bow, officers and crew needed to crawl along a catwalk and climb down a ladder. From here officers could navigate the ship, with instruments indicating speed and direction. However, the Hindenburg also boasted an early form of autopilot, which used a gyroscopic compass to control the rudder and elevators, and keep the ship on its assigned course during cruises in stable weather.



### Gas cell

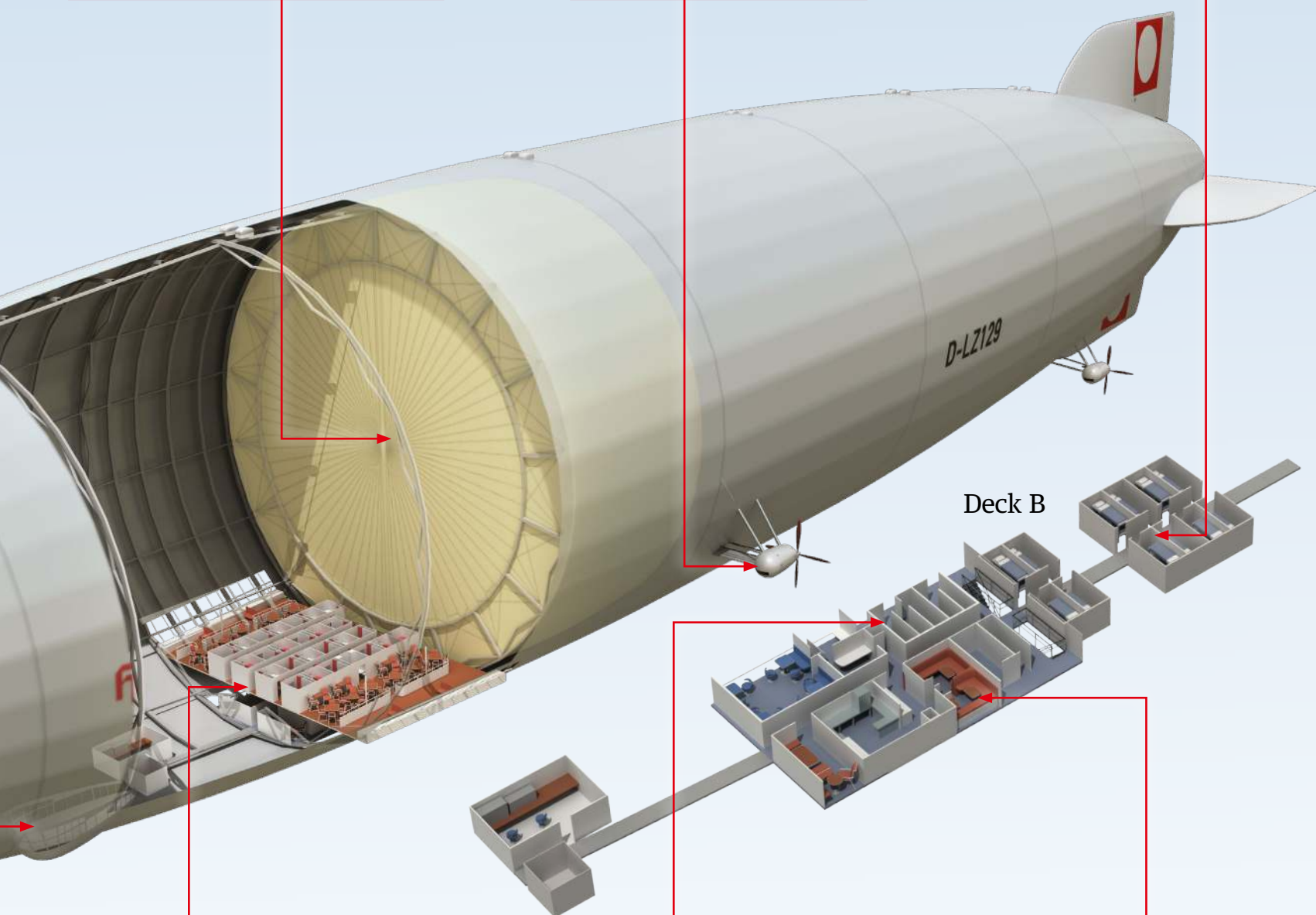
The Hindenburg's frame was made from an aluminium alloy called duralumin and was longer than three Boeing 747s placed nose to tail. The airship was filled with up to 200,000 cubic metres (7,062,000 cubic feet) of hydrogen in 16 separate gas bags, which made the ship buoyant. The ship's cotton outer skin was coated with a lacquer known as dope, which made it airtight. It was also painted with an aluminium powder, which reflected sunlight to stop the hydrogen overheating, while an interior layer of iron oxide absorbed ultraviolet radiation for the same reason.

### External engine car

The Hindenburg's four, 16-cylinder diesel engines were made by Daimler-Benz (which also made Mercedes cars). Driving the propellers, each one was stored in an external engine car, to which mechanics would have to access by stepping out into the open air with only a railing for protection – even in mid-flight! A mechanic was stationed in each engine car at all times to monitor the diesel and carry out engine orders transmitted from the control car.

### Crew quarters

While the crew had their own mess hall on B-Deck, they slept in the quarters in the keel of the ship. These were near the electrical room, radio room and cargo bay that many of the men attended to. Quarters included 22 bunks for crews, 12 for officers and a private cabin for the commander.



Deck B

### Double decker

The section of the airship that was inhabited by passengers and crew was referred to as 'the gondola' and boasted two decks known as A and B. The upper A-Deck was significantly more spacious and where passengers spent most of their time while B-Deck contained the ship's kitchen, the crew's mess and toilet facilities.

### Toilet facilities

Although the cabins contained washbasins and running hot and cold water, toilet and shower facilities were located in the central section of B-Deck. However the showers seem to have been something of a disappointment. American passenger Charles Rosendahl compared its weak water pressure to, "more like that from a seltzer bottle".

### Smoking room

As incredible as it may seem on a ship filled with highly flammable gas, the Hindenburg also boasted a smoking room. Separated from the rest of the ship by a double-door airlock it was also kept at a higher than ambient pressure so leaking hydrogen couldn't enter it. Passengers also had to share one electric lighter, while staff manning the cocktail bar would also monitor guests to make sure they didn't leave with lit cigarettes.





# SPITFIRE PILOT

## UNITED KINGDOM, 1938-1941

### OXYGEN MASK

The Type B flying helmet allowed a Type D oxygen mask to fit between two pairs of metal fasteners. Light, comfortable and made of green melton wool with a chamois lining, they were vital when Spitfires flew at high altitudes. But while Type 19 microphones would be attached to them, they'd cover many a pilot's bushy moustache - sported, it's thought, to make young men look older.

### LAYERED GLOVES

There was a high risk of fire on a Spitfire because the fuel tank was over the pilot's knee so it was important to protect against potential flames. Multi-layered gloves were used, with soft cape leather touching the skin, silk inners on top and a leather elbow-length gauntlet. They offered restricted movement so many pilots simply wore the thin inners despite the cold felt at altitude.

### FLYING SUIT

The 1930 pattern one-piece Sidcot suit was used throughout World War II and it was made to be worn over the top of normal uniform dress. Created from lightweight cotton, it was waterproof and warm. But it was possible to button extra lining into the suit for additional warmth and attach a fleece collar.

### STURDY BOOTS

Pilots initially wore these 1936-pattern black leather three-quarter length boots that were lined with sheepskin fleece. They had adjustable straps with metal buckles at the top but they were just one of four patterns used during the course of World War II - the 1940-pattern proved too loose and would often fall off if pilots needed to parachute to Earth.

### PROTECTIVE HEADGEAR

Between 1936 and 1941, Spitfire pilots wore the Royal Air Force's Type B flying helmet. Made of six vertical leather panels with a horizontal strip across the front, it had an adjustable chin-strap. Not only did it provide warmth, durability and a snug fit, it allowed radio earphones and goggles to be attached. A Type C helmet was introduced in 1941.

### EYES AND EARS

Zippered ear cups allowed radio earphones to be fitted inside the Type B helmet, with the connecting wire trailing outside (Type C helmets had rubber earpieces). Padding provided protection for the receivers and the side of the pilot's head. But while goggles were used to protect the eyes, they were prone to freezing. To help prevent this, electrical heating was used.

### LIFE PRESERVER

Life preservers became known as Mae Wests, a tribute in part to the Hollywood actress "because it bulges in all the right places" but also because it was rhyming slang. They were made of yellow fabric, self-inflated and had grab handles on the front along with pockets for a floating lamp and battery pack.





# FIND YOUR FAMILY'S SOLDIERS

Discover the part your ancestors played in Britain's military history



The most important family story is yours.  
Find it at **Ancestry.co.uk**

Ancestry provides the information you need to trace your family history around the world. Scour the globe with access to our entire library of more than 20 billion records.



**Easy to get started** with the details you already know.



**More than 30 million UK military records** ready to be discovered online.



Plus find details from **census, parish, migration and probate records**, and many more.



Ancestry Hints will **guide you through the process.**



**Automatically created life stories** for your ancestors add depth to the facts you find.



Find your story with a free trial at **Ancestry.co.uk**

 **ancestry**





# How to FLY A WRIGHT FLYER

THEY GO UP DIDDLY UP UP  
NORTH CAROLINA, USA 1903

The Wright Flyer did not just usher in a new age of air travel just because brothers Orville and Wilbur Wright could get the contraption off the ground. What made the world's first airplane revolutionary was that the pilot could control it.

The Flyer was the result of four years of careful study, with the Wright brothers pioneering many of the building blocks of modern aeronautic engineering, such as analysing wind tunnel data. The brothers also had to invent a whole new way of steering this flying machine, but over time they managed to get a grip of these controls, extending the flight time from 12 seconds on its premiere flight, to 59 seconds by their fourth attempt.

## Flying with wings

The Wright brothers had spent three years testing kites and gliders to perfect their plane. The wings have a span of 12.3 metres (40 feet four inches).

## Propelling forward

A pair of propellers at the rear are made from long, twisted pieces of wood. Moving at high speed, they generate thrust, pushing the Flyer forward.

## The Flyer's heart

A custom-made, gasoline-powered engine provides the power needed to turn the propellers - previous (failed) inventors had used steam.

## Ride lying down

The Wrights believed that a seated pilot would create more drag so they decided to fly their plane lying down.

## Loving the elevators

The elevators are a set of moveable wings that alter the amount of lift. It was placed up front for safety.

## Careful construction

The Flyer is 2.8 metres high (9 feet 4 inches) and it weighs 341kg (750lb) with the pilot. The right wing is four inches longer than the left for the engine weight.



## WHAT YOU'LL NEED...

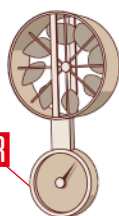
SMART SIBLINGS



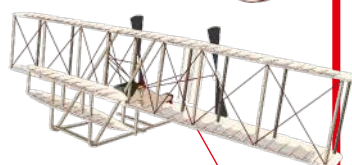
GASOLINE



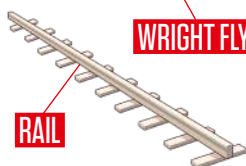
ANEMOMETER



WRIGHT FLYER



RAIL



## 01 FILL HER UP

To get started, top up the Flyer's 1.7 litre (1.6 quart) fuel tank with gasoline. This is mounted on a strut towards the centre of the plane, just below the upper wing. It's positioned upright because the Wright brothers relied on gravity to feed the fuel into the plane's internal combustion engine via a small metal fuel line.



## 02 GET INTO POSITION

The Wright Brothers decided pilots should operate the 1903 Wright Flyer by lying on their stomach, squeezed on the lower of the two wings. It means you have to crawl into position at the centre of the plane, ensuring that your head is pointing towards the front of the aircraft. Your body needs to be within the hip cradle so that you can steer.



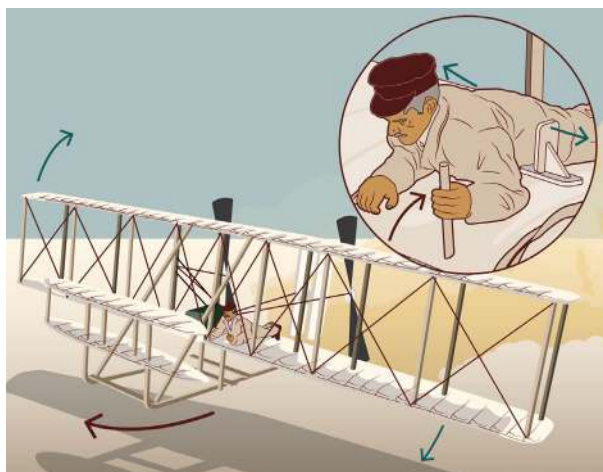
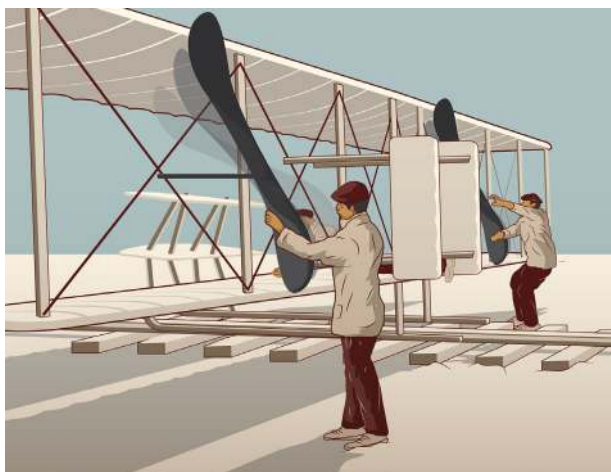
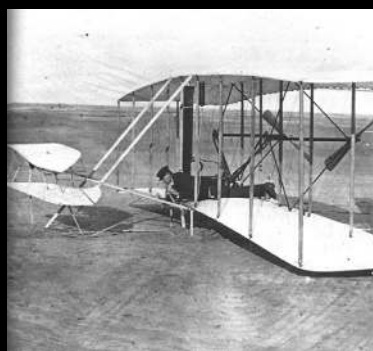
## How not to... Take to the skies

Although the Flyer successfully got off the ground on 17 December 1903, Wilbur Wright had actually made an attempt to fly the plane on a cold winter's morning three days earlier. He'd won the chance following the toss of a coin with his brother, Orville, and the pair made preparations at Kill Devil Hills, four miles south of Kitty Hawk, North Carolina.

Assisted by men from the local coast guard, the Wrights got the plane into position on an incline of a sand dune and Wilbur crawled into the pilot's

position. The Flyer - newly fitted with a lightweight engine that the brothers designed themselves - journeyed 12 metres (40 feet) down the rail. But Wilbur pulled up too sharply and the plane suddenly lurched and stalled.

This drove the aircraft into the sand, ending the flight after just three-and-a-half seconds. Wilbur was confident that success was in their grasp. Even so, it would be Orville that would be the one to pilot on their next attempt - and make history in the progress.



## 03 START THE ENGINE

Use your right hand to move a horizontal lever, placing it into a central position. Since this is the fuel valve, it will open a cock and allow the flow of fuel to the engine to be controlled. Once the engine begins to run fast and smooth, your pair of assistants will pull on the propellers and release the restraining wires.

## 04 EXERT YOUR CONTROL

The plane travels down a wooden rail and when a 20 knot wind hits the nose, the plane rises. Pull back ever so slightly on the elevator control with your left hand to tilt the elevator section upwards. Steer by sliding left and right in the hip cradle - it pulls wires that warp the wings, increasing the angle of attack on one side while decreasing it on the other.



## 05 ENJOY THE RIDE

Keep an eye on the stopwatch and the anemometer that are mounted to the right on the front strut because they'll tell you how far you're travelling and for how long. Try and keep going for as long as possible and don't worry the plane spinning out of control because the Wrights connected the rear rudder to the wing-warping system to prevent that.

## 06 LAND THE PLANE

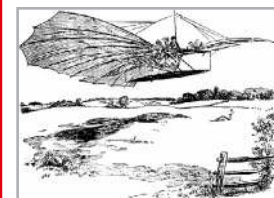
Once the flight comes to an end, it will lower back to earth and land on its skids, which are located on the underside of the Flyer. After you leave the aircraft, give it the once over because a part of the airframe will inevitably be broken. It may need to spend a day in the workshop to get it back up to scratch for your next go.

## 4 FAMOUS... FLIGHT CLAIMANTS



### CLÉMENT ADER FRANCE, 1897

Ader produced the steam-powered, bat-like Avion III with financial backing from the French War Office. It's not believed to have launched during testing.



### GUSTAVE WHITEHEAD UNITED STATES, 1901

A newspaper article in 1901 suggested Whitehead had flown a powered machine but despite his own such claims, no firm evidence has ever emerged.



### RICHARD PEARSE NEW ZEALAND, 1903

It's been claimed Pearse flew and landed a heavier-than-air machine on 31 March 1903. However, Pearse himself denied this and said his attempt had come in 1904.



### SAMUEL PIERPONT LANGLEY UNITED STATES, 1903

Pilot Charles M Manly made unsuccessful attempts to fly Langley's Aerodrome on 7 October and 8 December 1903.





## Day in the life

# CHARLES LINDBERGH

## THIS HISTORIC FLIGHT THAT CHALLENGED THE LIMITATIONS OF AVIATION

NEW YORK TO PARIS, 20-21 MAY 1927

In 1919, hotel owner Raymond Orteig, offered a \$25,000 reward to the first aviator or aviators to fly from New York City to Paris, or vice-versa. He had been inspired by a speech given by flying ace Eddie Rickenbacker, discussing the friendship between America and France, at a dinner for the Aero Club of America.

The race was on and various attempts were made by different aviation teams, all of whom failed to complete the race. Funded by bankers in St Louis Missouri, Charles Lindbergh decided to attempt the transatlantic flight solo, to avoid inevitable fighting with a co-pilot, and forewent equipment that added weight to his plane, such as radios and a parachute. His success spurred on other pilots, with many aviation records broken during 1927.

L

### PREPARING THE FUEL

Up bright and early for the biggest adventure of his life, Charles Lindbergh arrived at his hangar at Curtiss Field to watch his plane's gas tank being pumped with fuel. He also listened out for the weather reports to determine whether it would be safe to conduct the flight. The reports all indicated fine, clear weather with very little wind.

T

### TOWING THE PLANE

Encouraged by the good weather reports Lindbergh had his plane, the Spirit of St Louis, wheeled from the Curtiss Field hangar and onto the runway at Roosevelt Field. Patrolmen helped to escort the plane towards the runway while crowds started to gather with excitement with the news that Lindbergh was going to set off later that morning.

T

### TAKING OFF

With 1,704 litres to be pumped into the plane's tank, it took a few more hours for the plane to be ready. Once this was completed, Lindbergh set off down the runway in front 500 onlookers and lifted off into the sky. The plane gathered speed slowly and only just cleared the telephone wires at the end by about six metres.

Lindbergh's plane is now on permanent display at the Smithsonian Institution's National Air and Space Museum in Washington DC







Lindbergh with hotel owner Raymond Orteig, the man who funded the Orteig Prize

## MAKING PROGRESS

After five hours of flight, Lindbergh had travelled over 400 miles away from New York, over the Gulf of Maine and towards Nova Scotia.

Lindbergh had begun to feel tired mid-way through this first leg of the journey and descended until he was flying ten feet above the water, to keep his mind clear. Wind velocity started to increase to 30mph.

## FLYING OVER CANADA

As Lindbergh flew over a mountain range a storm front approached, but luckily his course moved him away from the edge of the storm. Now passed Nova Scotia, Lindbergh flew along the southern coast of Newfoundland.

Since mid-afternoon he had been struggling to keep his eyes open.

## STAY AWAKE

As nightfall descended, the sea was covered by fog and Lindbergh raised his plane from an altitude of 800 feet to 7,500 feet in order to stay above it. He flew into a thunderhead cloud but had to quickly change direction when ice started to form on the plane. Lindbergh also kept the plane's windows open and hoped that the cold air would help to keep him awake.

## OVER HALFWAY

With around 15 hours left to go, Lindbergh was over half way through his ambitious flight. He was exhausted as daylight broke and he fell asleep with his eyes open numerous times, awakening unsure of the seconds or minutes that had passed - Lindbergh also experienced hallucinations. After hours of trying to stay above the fog, it finally began to clear up.

## TOWARDS IRELAND

After more than 24 hours in the sky, Lindbergh pushed past the tiredness and felt more awake. He had seen fishing boats in the sea below and lowered the plane to ask for directions, but none of the fisherman surfaced to talk to him. Looking at his charts, Lindbergh realised that he was approaching the south of Ireland, two and a half hours ahead of schedule.

## ARRIVAL IN PARIS

As he approached the English coast, Lindbergh realised how close he was to reaching his target and increased his air speed to 110mph, hoping to reach France in daylight - he was no longer tired. At 10:22pm local time Lindbergh made his historic touch down at the Le Bourget Aerodrome in Paris after just over 33 hours of flying and was greeted by a crowd of around 150,000 people.





# Hall of Fame

## FANTASTIC FLYING ACES

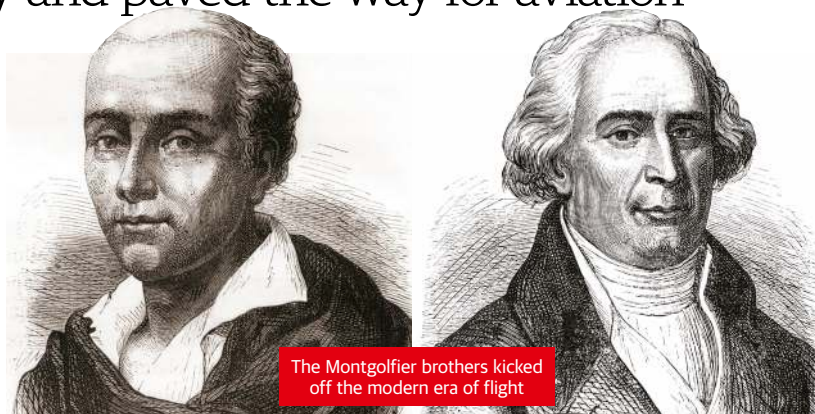
From inventing the hot air balloon to the first transatlantic flight, meet ten people who soared into the sky and paved the way for aviation

### THE MONTGOLFIER BROTHERS

**FRENCH, JOSEPH-MICHEL: 1740-1810 • JACQUES-ÉTIENNE: 1745-1799**

These French siblings made history when they invented the hot air balloon. In 1782, the brothers discovered hot air collected inside a paper or fabric bag could make it rise. As wealthy paper manufacturers, they had the money to fund their subsequent hot air balloon experiments.

On 4 June 1783, the pair gave the first public demonstration of their invention in Annonay, with the balloon rising around 910 metres off of the ground for 10 minutes. In September, they held a demonstration at Versailles with a larger balloon and a sheep, a rooster and a duck as passengers. Two months later, they performed the first manned and untethered flight with the hot air balloon, with Jacques-Étienne as one of the passengers.



The Montgolfier brothers kicked off the modern era of flight



The Wright brothers focused on developing pilot control

### THE WRIGHT BROTHERS

**AMERICAN, WILBUR: 1867-1912 • ORVILLE: 1871-1948**

Fascinated with aviation since they were children, Wilbur and Orville Wright were determined to make human flight possible. They improved their mechanical skills by working with bicycles and motors, while developing their skill as pilots with the gliders they built between 1900 and 1903.

However, the brothers made history on 17 December 1903 with the first successful, controlled and sustained flight of their powered airplane, the Wright Flyer, four miles south of Kitty Hawk, North Carolina. The brothers also developed the first practical aircraft with fixed wings, as well as inventing the first set of aircraft controls that enabled it to fly.

Neil Armstrong carried a piece of the 1903 Wright Flyer's left wing and its wooden propeller in his spacesuit during his Moon landing

### MANFRED VON RICHTHOFEN

**PRUSSIAN, 1892-1918**

Better known as 'the Red Baron', Richthofen was regarded as the ace-of-aces of the German Air Force during World War I. As a fighter pilot Richthofen was officially responsible for shooting down 80 planes, more than any other pilot of the war. This feat is all the remarkable as he didn't transfer into the air service until 1915. When he was appointed leader of his own squadron, nicknamed the Flying Circus, Richthofen painted his plane red in celebration.



Richthofen was turned into a propaganda figure for Germany



Earhart's disappearance continues to fascinate the world

### AMELIA EARHART

**AMERICAN, 1897-1939 (IN ABSENTIA)**

Arguably one of the most famous pilots in history, Amelia Earhart was not only the first woman to fly across the Atlantic Ocean in 1928, but she was the first to do it solo just four years later. For her historic journey Earhart was awarded the United States Distinguished Flying Cross, become the first woman and civilian to do so.

An advocate for women in aviation, Earhart took part in the Women's Air Derby in 1929 and afterwards co-founded The Ninety-Nines, an international organisation for women pilots. However, Earhart's achievements have been overshadowed by her mysterious disappearance over the Central Pacific Ocean alongside her navigator Fred Noonan, during their attempt to circumnavigate the globe in July 1937.





Barnes was known for her fearless nature

## PANCHO BARNES

AMERICAN, 1901-1975

Not many people would conduct their first ever solo flight after just six hours of lessons, but that is exactly what Pancho Barnes did. She competed in air races, including the Women's Air Derby, and although she crashed during the Derby of 1929, Barnes returned the following year to break the air speed record set by Amelia Earhart. Just like Earhart, Barnes was a member of the Ninety-Nines and she eventually moved to Hollywood to become a stunt pilot.

Barnes opened the Happy Bottom Riding Club in the Mojave Desert in 1935, which catered for test pilots at the Edwards Air Force Base

## CHARLES LINDBERGH

AMERICAN, 1902-1974

Lindbergh was propelled to fame when he became the first person to fly non-stop across the Atlantic in 1927, aged 25 years old. He flew from New York to Paris in his aircraft, Spirit of St Louis, and received the award dedicated to the feat, the Orteig Prize. Despite this achievement, the tragic kidnapping and killing of his 20-month-old son in 1932 - dubbed at the time as the 'Crime of the Century' - eclipsed Lindbergh's success.

Lindbergh was awarded the Medal of Honor



Hughes was often dubbed the 'fastest man alive'

## HOWARD HUGHES

AMERICAN, 1905-1976

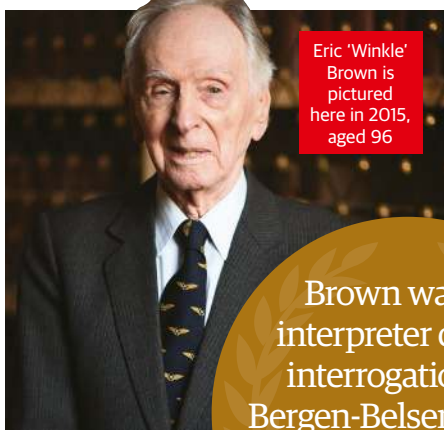
Howard Hughes was a man unlike any other. Remembered for his eccentric behaviour, Hughes was a renowned engineer, director, philanthropist and aviator, among many other things. As an aviator, he founded the Hughes Aircraft Company in 1932 and developed three new airplanes, which were groundbreaking in design.

During the 1930s and 1940s, Hughes dedicated much of his time to aviation and he broke a number of world air speed records. This included the fastest flight to circumnavigate the world, which he achieved in 1938 in 3 days and 19 hours and 17 minutes, beating the previous record of 8 days, 15 hours and 51 minutes.

Hughes survived four airplane accidents during his lifetime, and almost died when he crashed his Hughes XF-11 airplane in 1946

"The air is the only place free from prejudices"

- Bessie Coleman



Eric 'Winkle' Brown is pictured here in 2015, aged 96

## ERIC 'WINKLE' BROWN

BRITISH, 1919-2016

As one of the world's most renowned test pilots, Brown flew a total of 487 different aircraft during his lifetime, more than anybody else in history. Among them included gliders, fighters, bombers, helicopters and even flying boats, many of which he flew during World War II. Brown set the record for the most deck landings at sea and take-offs, at 2,407 and 2,721 respectively - a record that is unlikely to ever be beaten - and he was also the most-decorated pilot in the history of the Royal Navy. Throughout his life, Brown was an advocate for aviation development and was a pioneer for jet technology during the postwar era.

Brown was an interpreter during interrogations at Bergen-Belsen and he called Irma Grese "the worst human being I have ever met"

## HIROYOSHI NISHIZAWA

JAPANESE, 1920-1944

Nishizawa was an ace of the Imperial Japanese Navy Air Service during World War II. It is uncertain how many aerial victories he was individually responsible for, but he is often credited with over 100 of them. Nishizawa escorted the first major kamikaze mission in October 1944 and after a premonition of his own death, volunteered for the next one, which was denied. Assigned to a different mission the next day, his plane was shot down by US fighter pilots.



Nishizawa had a terrifying reputation amongst his enemies

## BESSIE COLEMAN

AMERICAN, 1892-1926

Bessie Coleman was the first African-American female pilot and the first African-American of either gender to receive an international pilot's licence. Coleman hoped to establish a flying school for African Americans. Tragically she was killed during a flight along with her publicity agent, William Will, who was piloting the plane. Coleman inspired many African-Americans to enter aviation.



Coleman was determined to become a pilot

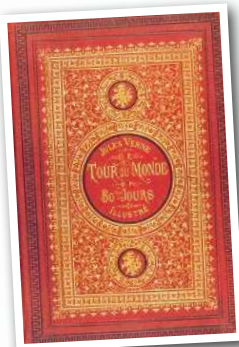




# HISTORY ANSWERS

Did Nellie Bly really travel around the world in 80 days?

Georgina Monroe



No – she did it in 72. After reading the Jules Verne novel *Around the World in 80 Days*, American journalist Elizabeth Jane Cochrane, who wrote under the pseudonym Nellie Bly, pitched the idea of doing it for real to the *New York World* in 1889.

The newspaper's editor dismissed her, saying a woman would be unable to make such a trip. Biting back, Nellie replied, "Very well. Start the man and I'll start the same day for some other newspaper and beat him." The editor backed down and agreed to

fund the journey. Departing New Jersey on 14 November 1889, Bly reached Hong Kong on Christmas Day. Here she discovered that not only had *Cosmopolitan* dispatched their own reporter, Elizabeth Bisland, to race her, but that they were three days ahead of her. However, Bisland missed a vital connection in England. Bly beat her home by four days, completing her circumnavigation of the globe on 25 January 1890.

However, while we today associate Phileas Fogg, the hero of Verne's novel, with travelling in a hot air balloon, this doesn't actually happen in the book. Instead it was perpetuated by the 1956 movie. Equally, Bly did not fly – she travelled mostly by steamship and train.

What was the world's first commercial airline?

Kate Stewart

The St Petersburg-Tampa Airboat Line was the first to charge for flights, travelling twice a day, six times a week, between the Florida cities of St Petersburg and Tampa. Its maiden voyage was on 1 January 1914, with pilot Tony Jannus carrying only one passenger, Abram C Pheil the former mayor of St Petersburg, who bid \$400 (around \$8,500 in today's money) for the privilege. While the airline unfortunately folded after four months, the idea of commercial air travel quickly took off.



Would Da Vinci's flying machines have worked?

Sam Harmon

Leonardo had a lifelong fascination with flight and filled his notebooks with sketches for hang-gliders, parachutes, a rotor-driven aerial screw, and something called the ornithopter, which had wings that flapped. While Da Vinci never actually built any of them, if he had it's unlikely that they would have ever have worked. They all relied on manpower rather than engine power, which could never have produced enough lift to get off the ground.







# 22,500+

Spitfires & Seafires built

£5,696

Approx cost to build in 1940

55

Approximately the number still flying

29 ft 11 in

Length

36 ft 10 in

Wing span

£2m +

Cost of Spitfire today

# 1936

5th of March  
First flight of the prototype

# 1000+

Flying time in his current display pilot fit Lt. Charlie Brown has flying Spitfires

460 mph

Top speed of Spitfire PR.XIX

349 mph

Top speed of prototype

## A MODEL AIRCRAFT THE SUPER SUPERMARINE SPITFIRE

On 5th March 1936, Eastleigh Aerodrome near Southampton was to play host to one of the most significant events in the history of British aviation. As Vickers Supermarine's chief test pilot Joseph 'Mutt' Summers strapped himself into the cockpit of the Supermarine Type 300 interceptor prototype K5054, he knew that he would be flying one of the most advanced aircraft the world had ever seen. During a brief eight minute flight, the aircraft showed so much promise, that on landing, Summers reputedly told the engineers waiting on the ground 'Don't touch a thing!'

The Supermarine Type 300 was soon given the name 'Spitfire' and an enduring aviation legend began to take shape. Arguably the most famous fighter aircraft of all time, the Spitfire proved its pedigree during the savage dogfights of the Battle of Britain and went on to serve valiantly in every theatre of conflict during the Second World

War. Produced in more numbers than any other British combat aircraft, the basic Spitfire airframe proved to be so adaptable that the aircraft saw significant upgrade and improvement throughout its sixteen year service life. Using what was essentially the same airframe, the last Spitfires were producing more than double the power of the first machines and its maximum take-off weight and rate of climb had also doubled.

The graceful, sweeping lines of the beautiful and distinctive Supermarine Spitfire sometimes make it difficult to imagine that this was actually one of the most deadly fighter aircraft the world has ever seen. Representing Britain's defiance in the face of adversity and her prowess in the field of aeronautical excellence, the Spitfire is as iconic today, as she was ground breaking when she first took to the skies 80 years ago.

Airfix kits allow you to recreate hundreds of different iconic aircraft, tank and car scale models in the comfort of your own home. Being the iconic aircraft that it is Airfix produce a wide variety of Spitfires in a variety of different scales and schemes. Within the Airfix range, alongside the classic kits, there is a Supermarine Spitfire Mk.Ia Starter Set which contains glue, paintbrush and 4 acrylic paints, everything you need to create a stunning 1:72 scale model.

**A55100 SUPERMARINE  
SPITFIRE MK.IA STARTER 1:72**



**A02102 SUPERMARINE  
SPITFIRE MK.VA 1:72**



**A05125 SUPERMARINE  
SPITFIRE MK.Vb 1:48**





# Crusader Kings

Inside Europe's quest to forge a holy empire in the Middle East through zeal and steel

Written by Peter Price

**T**he Crusades were a struggle for the soul of the Holy Land, with Christian and Muslim forces clashing for over 200 years.

While thousands of ordinary men fought for what they thought was right, seizing control of the Middle East's many religious sites and venerated cities, new military orders like the Knights Templar offered opportunity for advancement, glory in battle could turn minor monarchs into living legends, and all-new dynasties were founded to rule the region. In time, a preoccupation with wealth and status would ultimately consume the Crusaders and shock polite society back in Europe with their avarice.

## Call to arms

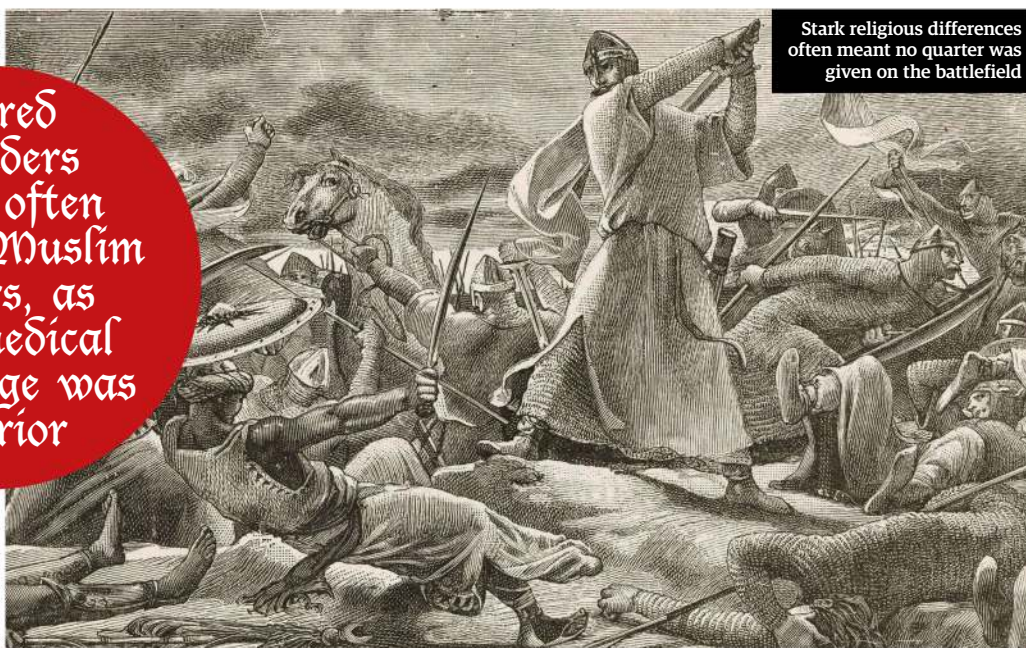
The First Crusade was called in 1095 by Pope Urban II, proclaiming, "Whoever for devotion alone, but not to gain honour or money, goes to Jerusalem to liberate the Church of God can substitute this journey for all penance." The religious fervour that inspired Crusaders to leave their homes and travel thousands of miles to wage a holy war cannot be overstated.

While (probably exaggerated) stories of Muslims persecuting native Christians and western pilgrims in Jerusalem helped fuel support, the main driving force was that the expedition offered a new way to attain salvation. The zealous crusaders referred to their force as the 'Army of God' and the fallen as 'dead martyrs'. However, that's not to say there

weren't ulterior motives for the First Crusade. For one, the papacy was engaged in a mighty struggle with the Holy Roman Emperor, Henry IV, and calling the crusade greatly enhanced Urban II's standing.

The Byzantine emperor Alexios I had also beseeched Urban II to send military aid to help him fight Seljuk Turks encroaching on his border.

Injured crusaders would often request Muslim doctors, as their medical knowledge was superior



Stark religious differences often meant no quarter was given on the battlefield



"The religious fervour that inspired Crusaders to leave their homes and travel thousands of miles to wage a holy war cannot be overstated"





# The Crusades

## Anatomy of a Templar Knight

The key kit and weapons carried by the most elite of Christian warriors

### Helmet

The great helm was the mainstay of the Templar Order and offered excellent protection against blows, as did the sugarloaf helmet. Due to narrow viewing corridors and high temperatures experienced in the Holy Land, many opted for more lightweight alternatives with open faces.

### Jerkin

Unseen, however often critical in keeping a Knight Templar breathing, was the haubergeon, a padded jerkin that sat against his skin. The jerkin extended over much of the upper body and was the last line of defence from enemy blows. In colder climates, it also helped keep the warrior warm – not an issue in the Holy Land.

### Shield

Adorned with the Christian cross of their order, the Templar shield was large and long, with a teardrop design protecting their entire torso and upper legs. It was constructed from wood and had a metal rim, the latter helping to protect against it splitting under the weight of sword blows. It had a leather handgrip at the rear.

### Broadsword

As standard for western knights, the typical Knight Templar was armed with a broadsword, however when fighting on horseback spears were also used. Sometimes, two-handed broadswords were opted for while fighting on foot, but while they granted extra reach and cleaving power, they left the knight shieldless.

### Surcoat

Above the knight's chainmail sat the visible surcoat. This white garment not only kept the Sun off their metal armour, also displayed the symbols of the Order.

### Chainmail

The primary form of defence against enemy strikes, the hauberk, a long-sleeved shirt of chainmail fitted with chain covers for the hands and a chain coif hood for the head, was a knight's armour. The chainmail would be partnered with iron chausses to protect their legs.



Relations between the Catholic West and Orthodox East had long been fractious and the pontiff saw it as an opportunity to improve relations.

Four armies of Crusaders were formed from troops of different part of Europe, led by high-ranking nobles, including Raymond of Saint-Gilles, Godfrey of Bouillon, Hugh of Vermandois and Bohemond of Taranto (along with his nephew Tancred). While people from all social classes 'took the cross' it's notable that no kings fought in the First Crusade. A fifth column of less-organised knights and commoners known as 'the People's Crusade' was also led by the popular preacher called Peter the Hermit.

The Crusaders marched overland to Constantinople, the capital of the Byzantine Empire, in August 1096. Peter's army arrived first and did not heed Emperor Alexios I's advice to wait for back-up before attacking. In the first major clash between the Crusaders and Muslims, Turkish forces crushed the invading Europeans at Civetot.

Once the full force of Christians arrived, the Crusades quickly went their way. In quick succession they overthrew the city Nicaea, the Seljuk capital of Anatolia; the Roman Empire's former third city, Antioch, in June 1098; and Jerusalem in 1099. The capture of the holy city saw the Crusaders unleash



Raymond of Aguliers reported seeing 'piles of heads, hands and feet' during the bloody 1099 siege of Jerusalem



an orgy of destruction, killing men, women and children, with both Jews and Muslims targeted as the city was 'cleansed' of religious opposition.

Before they crossed the Bosphorus, Alexios I had to try to make the Latin forces swear an oath of allegiance to him recognising his authority over any

land regained from the Turks, as well as any other territory they might conquer. Tellingly, all but Bohemond - who had previously fought the Byzantines and wanted to get back in their good books - resisted taking the oath. With the Holy Land now under western control, the territory was divided up into

settlements, collectively known as Outremer, literally meaning 'overseas' in French.

These were comprised of the Kingdom of Jerusalem, the Principality of Antioch and the counties of Tripoli and Edessa. However, while a new Latin aristocracy sprang up in the Middle East, most crusaders

## Calculating the First Crusade

35,000

European Christians fought in First Crusade



10,000

People killed in the sack of Jerusalem

2,700 miles

Walking distance from Paris to Jerusalem



2

The number of times the crusading army was (allegedly) reduced to cannibalism

4

Number of states created by the crusaders in the Holy Land





## The Other Orders

Warrior monks who packed a punch

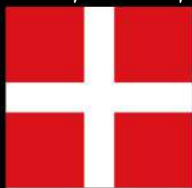
### The Order of St Lazarus



until his condition deteriorated.

As its name may suggest, This order found its origins and recruits from various leper hospitals around the holy land. A knight who contracted the deadly and feared disease was expected to join their military ranks

### Order of Knights of the Hospital of Saint John



Islamic shipping in the Mediterranean.

Also known as the Knights Hospitaller, or the Order of St John, this order was originally created to care for sick pilgrims en route to the Holy Land. After being expelled from the Middle East the order focused on attacking

### The Knights of St Thomas



order's numbers were never very high.

Another order of hospitallers, this order was founded during the Third Crusade to minister to the sick and wounded and bury Crusader dead, but only recruited English knights. Unsurprisingly, this meant the

### The Order of Mountjoy



fought with the Christian army at the horns of Hattin.

This military order named itself after Montjoie, the hill where the first crusaders set their eyes on Jerusalem. Originally charged with protecting pilgrims in Spain, the order received donations from King Baldwin IV and

### The Teutonic Order



European crusades against Baltic pagans.

More commonly known as the Teutonic knights, this German order was established after the siege of Acre in 1191. Tasked with protecting pilgrims the Teutonic knights were very active in both the holy land and the eastern

returned home with their plunder, leaving the small and fractured kingdoms to stand alone against the still numerous and powerful Islamic rulers. While they were protected by mighty fortresses, these states hung on a knife edge and constantly struggled for survival.

### Holy Empire

While the Outremer states were being carved up, the nobles that led the Crusade were coy about being crowned ruler. When Raymond of Saint-Gilles refused to be crowned, Godfrey of Bouillon accepted it but refused the title of king - preferring to be called 'Defender of the Holy Sepulchre' instead.

However, down the years Godfrey's successors had no such qualms. His brother Baldwin became the first crusader king in 1100, expanding the Kingdom of Jerusalem into modern-day Israel, Syria, Jordan and Lebanon. He died leading raids on Islamic Egypt. His successor, another cousin, became Baldwin II, continued to conquer territory for the kingdom.

However, it was under a crusader queen that Jerusalem enjoyed a golden age. Baldwin II's half-French, half-Armenian daughter, Melisende, was married to Fulk of Anjou - a French aristocrat with close ties to both the French and English crowns. However, it was she, groomed to rule from

a young age, who held the real power from 1131. Capable of cowing her husband until his death in 1143, Melisende also served as regent for her 13-year-old son, another Baldwin. She not only built today's Church of the Holy Sepulchre, but also the Tomb of the Virgin Mary and the markets of Jerusalem that survive to this day.

It was also Melisende that sounded the alarm that led Pope Eugenius III to call for the Second Crusade in 1145. In December 1144,

Zengi, the Muslim ruler of Aleppo and Mosul, captured Edessa. Melisende sent armies to save the Crusader state, but without further reinforcements the last ditch effort was bound to fail. The other major crusader state, Antioch was preoccupied with its own fight with the

Byzantines, so the Latin settlers requested help from the west.

Eager to live up to their crusading forefathers, this time many royals took the cross, most notably King Louis VII of France and Emperor Conrad III of Germany. Louis was also joined by his wife, Eleanor of Aquitaine, who travelled with him to Constantinople and Jerusalem. Though its said Eleanor insisted on leading the soldiers from her duchy into battle, claims that she dressed as an Amazon while doing so are disputed.

Though the Second Crusade amassed vastly larger forces than the First Crusade, sending 50,000 to the Holy Land, it was not a success.

Crusades were also fought against Muslims in Spain, pagans in the Baltic, and even the Mongols

The Siege of Damascus was the decisive battle of the Second Crusade





## Crusader Kings

### The Kingdoms of Heaven

European Christians carved out a home in the sands of the Middle East

King Richard got within striking distance of Jerusalem, but was forced to beat a tactical retreat as he had no hope of holding the city



#### Byzantine Empire

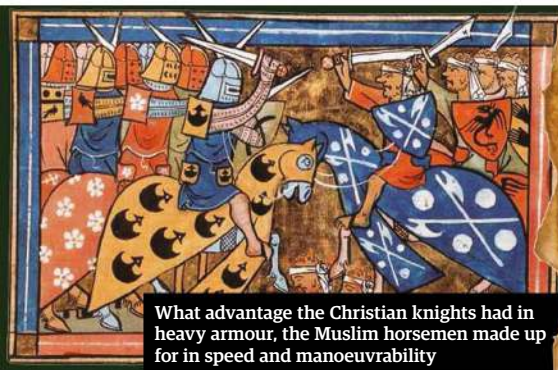
The continuation of the Roman Empire in the east, this powerful empire had a tepid relationship with the Christian west. Although mutual military expeditions were common, the sacking of its capital Constantinople by the Fourth Crusade was the Empire's death blow.

#### Seljuq Turks

An old enemy to Byzantium and a new foe for Latin Christendom, the Turks' empire was a powerful threat to Christendom in the holy land. It was Turkish aggression against the Eastern Roman Empire that prompted Emperor Alexios to ask the Catholic church for military aid, helping to birth the crusader movement.

#### County of Edessa

The first crusader state to be set up, Edessa served as a barrier between the Seljuk empires of Anatolia and Mesopotamia. It was also the first state to fall and did so in 1144, although it was not considered strategically important enough to recapture.



What advantage the Christian knights had in heavy armour, the Muslim horsemen made up for in speed and manoeuvrability

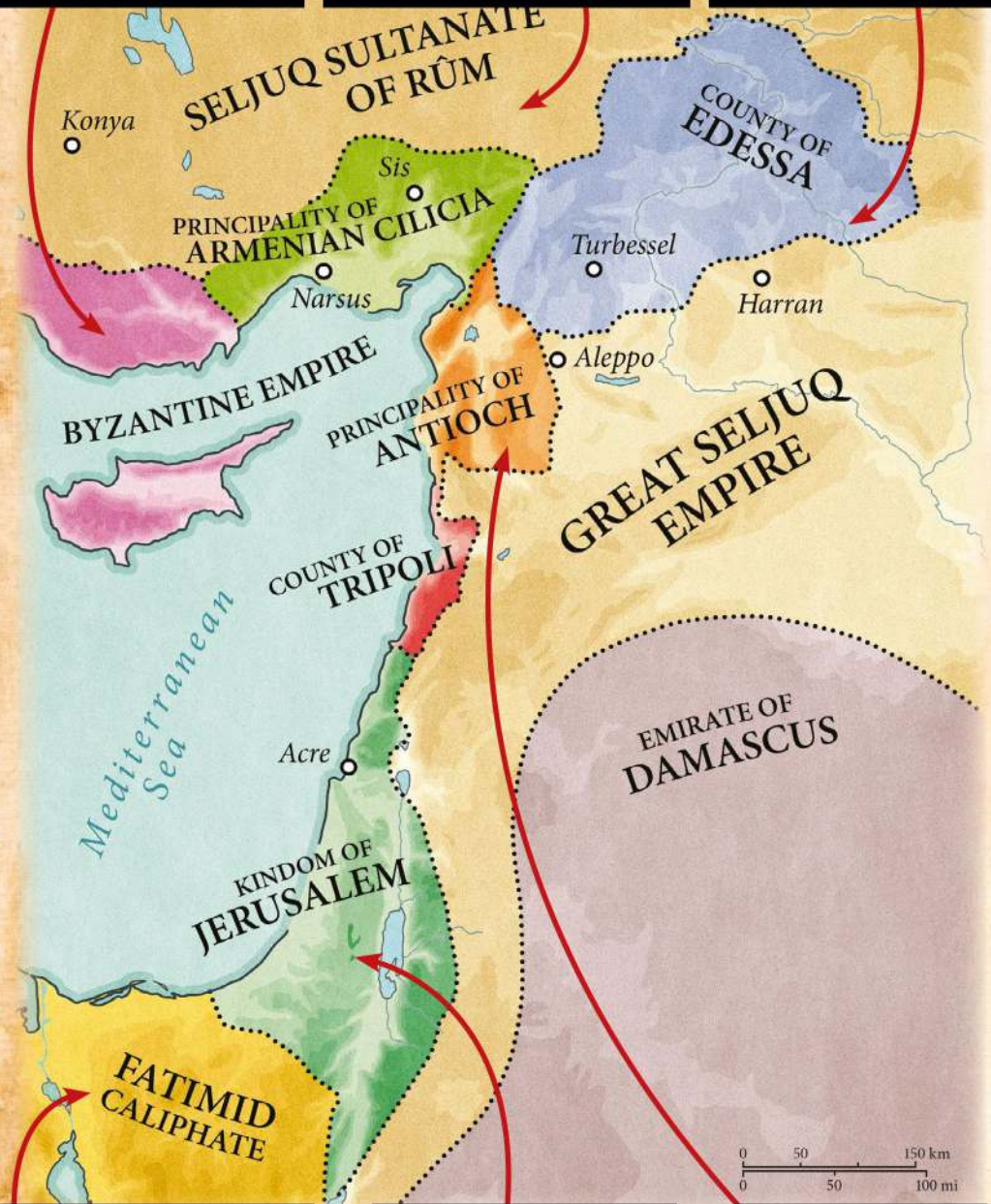
The western forces lacked discipline, supplies and finance, and were badly bloodied by the Seljuk Turks as they crossed Asia Minor.

While the original focus had been saving Edessa, by the time French and Germans arrived in 1147, it was firmly under control of Nur ad-Din, Zengi's successor. Instead, the crusaders targeted the Muslim city of Damascus. Yet four days into their siege, Nur ad-Din arrived with reinforcements, leading to a humiliating retreat. The Europeans returned home in 1148, leaving Jerusalem strategically weaker than when they had arrived.

To complicate matters, around this time Melisende fell out with her son, Baldwin III. Now seven years into his majority, Melisende still held the reins of power, unwilling to let her headstrong son take the throne as sole monarch. A compromise was reached where Baldwin governed the north of the region while the queen took Judea and Samaria. However, civil war broke out when Baldwin invaded his mother's territory. Mother and son eventually reconciled, with Melisende retiring in 1154. After his rule was stabilised Baldwin was free to defend the borders of the kingdom. After a prolonged campaign Baldwin finally scored a decisive victory, defeating Nur ad-Din in 1158.

### Saladin's jihad

The succession of the kings and queens of Outremer was never a certainty and Baldwin III's nephew Baldwin IV was no exception. Although a bright youth his tutors became increasingly concerned over his apparent



#### Fatimid Caliphate

Claiming rulership from Fatima, the prophet Muhammad's daughter, the Fatimids ruled Egypt during the time of the First Crusade. Although they ruled a rich and fertile land the Caliphate was wracked by rebellion and division in the 11th and 12th centuries which saw the Caliphate fall to Saladin and the rise of Ayyubid dynasty.

#### Jerusalem

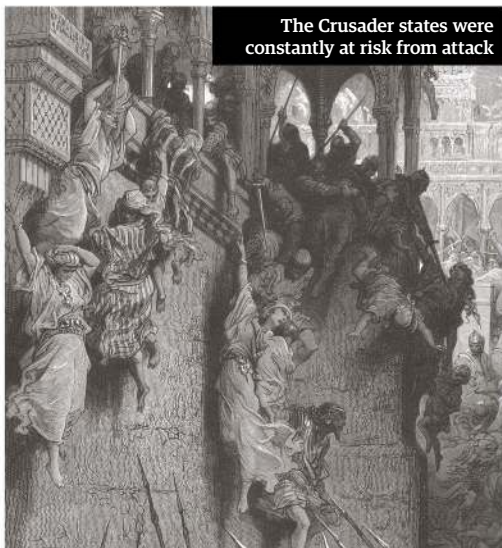
The objective of the crusaders and sacred place for almost all of the population of the holy land. The sack of Jerusalem by the crusaders in 1099, an orgy of bloodshed and vented frustrations, all but wiped out the Muslim and Jewish population of the city at the time.

#### Antioch

Once the third city of the Roman Empire, Antioch and the land surrounding it would be a continuous point of contention between the kings of Jerusalem and the Byzantine Empire, who believed the city should belong to them.



# The Crusades



high pain tolerance when playing with other children. This perceived bravery at pain soon gave way to shocking news – the future king had leprosy. Crowned in 1174, his rule was expected to be brief and not much hope was held that he would be any sort of leader beyond a figurehead.

Baldwin IV quickly dismissed this notion by taking a hard military stance. Conducting raids and skirmishes the young king won a number of surprising victories against the encroaching Saladin, a sultan who had united much of Egypt, Iraq and Syria under one banner, having his eyes set on Jerusalem.

However by 1183 weeping sores all over Baldwin's body had rendered it almost useless, with his vision also blurring to the point of near blindness. As a testament to his rule and reputation, upon hearing the 'Leper King' had joined the army defending Jerusalem, albeit

carried on a litter, Saladin retreated and would not attack again until Baldwin had passed away in 1185.

By this time, the crusader states had been emptied of fighting men so that all the castle and towns were left with tiny and inexperienced garrisons. The new ruler of Jerusalem, King Guy, was also a military novice, to the point he marched his army away from precious water sources while chasing Saladin's men in the desert. Delirious with thirst and heat these men were cut down at the Battle of Hattin in 1187.

With no one left to stand in his way, Saladin snatched Jerusalem from Christian hands. However, its noteworthy that the sultan did allow the Christian population to buy their way to freedom, and even let them haggle the price down. A stark contrast to the crusaders' bloody rape of the city almost 100 years prior.

## Richard vs Saladin

Both champions of their faith, how did the Third Crusade rivals compare?

### Richard



#### Warfare

Richard's tactical prowess meant that he never many battles in the Middle East. By leading from the front, being brave and sharing the campaign's hardships with his men, he earned their love and respect as their military commander. Back in Europe, he was revered as a military genius, and carried the continent's hopes.



#### Ruthlessness

Richard's massacre of the captured garrison at Acre was a barbaric and calculated act. Possibly unwilling to allocate the men and resources needed to keep them imprisoned, their execution relieved him of a humanitarian obligation and served to solidify his fearsome reputation amongst the Muslim army.



#### Effectiveness

Despite winning many battles, Richard failed to achieve his one main objective – which was to take Jerusalem. News of rebellion and treachery from his kingdom back in Northern Europe forced the king to abandon his crusade in order to keep his crown. This may have damaged morale amongst the crusaders.



### Saladin



Saladin, a Kurdish ruler, was not as hands-on in battle as Richard was, but his strategic manoeuvring brought victory after victory for his army. As the man who recaptured Jerusalem, he was widely loved and praised in the Islamic world. Even Saladin's name was enough to strike fear into the hearts of his enemies.



Although Saladin is often seen as a chivalric and merciful figure, he too had a ruthless streak in the heat of battle. As well as selling many captured Christians into a life of slavery, he also ordered the slaughtering of Knights Templar and Hospitaller prisoners after the Battle of Hattin, apparently delighting in the butchery.



Ruling over both Egypt and Syria, Saladin was able to unite most of the Islamic world one banner – though some sects, such as the Ismaili 'Assassins', still hated him. Though his exploits against the crusaders made him famous, he spent the majority of his time fighting and subduing rival Muslim rulers.





## Rise like lions

The loss of the holy city once again sent shock waves across Christendom and the Third Crusade was quickly called to re-establish control. This crusade would come to be characterised by the rivalry between Saladin and Richard I of England. Although they would never meet in person, the two giants would clash time and time again on the sands of Outremer and achieve legendary status in their respective communities.

The Third Crusade would again be a kingly crusade with three monarchs, Richard I of England, Philip II of France and Emperor Frederick Barbarossa of Germany all taking the cross. Commanding the largest kingdom, Emperor Frederick was the obvious choice to lead the army. His experience of fighting the Muslims and his massive army of 100,000 men, the largest crusading force at that time, would be invaluable to retake the Holy Land.

However, his triumphant march across Europe was cut short while crossing a river in Armenia ahead of his army. The king's horse shied on a bridge and plunged him into the raging water. Probably weighed down by his armour, Frederick was dragged under and drowned, a rather unceremonious end for the glorious emperor.

His son, eager to see his father reach the Holy Land, ordered his body to be pickled in vinegar and transported the rest of the way. The emperor's remains were spread across the Holy Land and divided between different churches.

The most prominent leader of the crusade was dead and now the chance for Richard, I to take up the mantle of leader. Son of Eleanor of

The bed-bound Baldwin IV still led the charge in 1183



Richard the Lionheart did not speak English and spent no more than six months in England during his reign

Aquitaine and her second husband, Henry II, the English king only had a middling reputation when he set off for war, but by the end of the Third Crusade would be regarded as a legend.

Earning the nickname 'Lionheart' for his courage, Richard also dazzled the European and Middle Eastern leaders with his charisma. Many crusaders over the years mortgaged their properties and sold their personal possessions to pay for their crusade but Richard took this a step further and looked to sell his new English kingdom for the chance to capture the

holy city. He raised funds by any means necessary, even allegedly selling nobles and government officials their lands and titles back. Material wealth was not a concern and he once allegedly quipped that he would have sold London if he could have found a buyer.

In June 1191, the king of England made a grand entrance at the siege of Acre. For months now Christian forces had been pecking away at the city's defences and a victory here would deal a great blow to Saladin's reputation and power in the region. Thanks to Richard's renewed efforts, the city fell a little over a month later. Richard had won a great victory but deep divisions in the crusader camp had split the army. Most notably, Philip had never shared Richard's crusading zeal and this, coupled with the hot climate and exotic diseases, saw the French contingent leave soon after Acre was conquered.

As Saladin's army had been engaging the crusaders throughout the siege, tense negotiations on prisoner transfers were now taking place. This sets the scene for one of the most controversial acts of barbarism in crusading history. The hefty ransoms pushed on Saladin were more than the emir could afford at that moment, and as time drew on, many believed the lack of payment was a delaying tactic designed to keep the crusader army mired at Acre.

With rumours of the Muslims killing their Christian prisoners, Richard ordered the captured garrison, around 3,000 men, to be brought out and slaughtered in full view of the Muslim army.

Abysmal winter weather battered the army on its march to Jerusalem and made any long term occupation of the area impossible. With his goal tantalisingly close, Richard ordered the retreat

Saladin offers refreshment to the defeated King Guy after his disastrous defeat at Hattin





# The Crusades



The sack of Constantinople outraged the Christian world

back to the coast. Jerusalem was to remain in Muslim hands and while the Europeans had made meaningful gains along the coast, their sole objective had eluded them.

## The fall of Constantinople

With the failure of the Third Crusade to take Jerusalem, another crusade was quickly called for and in 1202 the Fourth Crusade was well underway. However, this proved to be an abject failure that only served to deepen the divide between the Eastern and Western churches.

The Fourth Crusade would cause widespread scandal in Europe for its violence against fellow Christians. The crusades, which had been started as a holy war against the Muslims and perceived Christian persecution, were now willing participants. Attacking and capturing the Christian city of Zara to pay off their great debt to Venice, Pope Innocent III flew into a rage and excommunicated the Venetians.

From here the crusade swung round to Constantinople where they became embroiled in a dynastic dispute between the Byzantines. With all thought of a holy war thrown to the wayside the Christians assaulted and sacked the city when it

became clear that money promised to them for helping the exiled prince take the throne would not materialise. In an orgy of destruction one of the greatest Christian cities was stripped bare of its wealth and its inhabitants subjected to horrific pillaging.

The Venetians made off with countless priceless artefacts with the four massive metal horses now adorning St Mark's Cathedral in Venice being the most famous.

Innocent III condemned the sacking, calling out the crusaders for their barbarity but unlike the aftermath at Zara, he did not excommunicate anyone who had taken part. He could have seen the sacking as the subsequent carving up of the Byzantine territory as a way to unify the Catholic and Orthodox church and heal the rift between the crusaders and the Byzantines.

This view quickly faded as news of the horrific attack on the city made its way west. Attempting to keep crusading on a tight papal leash, Innocent III drew focus away from fighting pagans in France and Spain and reoriented Europe's

crusading eye once more on the Holy Land. With these fixed objectives also came the refocusing of military strategy by the Latin crusaders. It would be Egypt, not Jerusalem, that would become the target of the crusader force. His plan to take Egypt, echoed by the leaders

of subsequent crusades, looked to cut off the Muslim-occupied city from its power base and take out the majority of Muslim power in the Middle East in one fell swoop. These expeditions, like the ones before, failed to achieve their goal.

The European crusaders liked to think of themselves as superior, both martially and spiritually, to all that lived in the Holy Land. When they made the journey by land or sea it was to bring

the fight to the infidel, not to coexist nicely with them. Much to the new arrivals' chagrin, Muslim life in the crusader states continued with the sporadic European influxes. Latin Christians took on Arabic customs such as regular bathing and even a poor knight or noble could wear sumptuous silks that would make a European noble's head turn.

While thousands of young people joined the Children's Crusade of 1212, none of them reached Jerusalem



## Crusader Kings

While the armies of Europe were responsible for much of the crusade's success, they also didn't aid the long term survival of the crusader states and crusading in general. Each crusade, excluding the disastrous fourth, would see thousands of men descend on the Holy Land to wreak havoc, only for many to return home once completed.

This shortage of manpower was a problem from the very first crusade as trained military men were required to garrison the towns and castles captured in the name of Christendom.

The knightly orders like the Templar and Hospitaller stepped up to fill the gaps left by the retreating Europeans but the ebbing of men from the Holy Land slowly drained the crusader states' manpower. This ebbing of manpower was also reflected in crusading spirit.

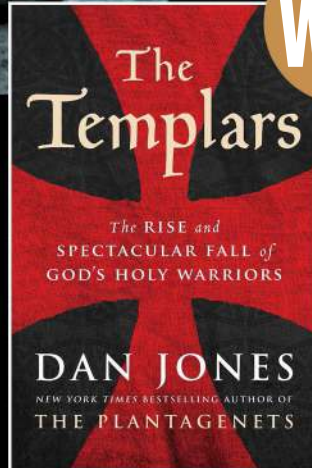
With the frenzied zeal of the First Crusade never being quite captured again, enthusiasm for crusading dwindled over the years. The 'golden age' of crusading led by King Richard would never be repeated. Kings were uneasy about leaving their kingdoms for meaningful lengths of time, much like Philip II abandoning his vows to shore up his holdings in France while Richard was busy trying to capture Jerusalem. The death rattles of the crusading spirit were sounded in the 13th century when the future Edward I of England, was forced to return to Europe and leave Outremer to its fate.

With the rise of the powerful Mamluk Caliphate in Egypt, defeat after defeat soon saw the last of the Christian strongholds fall at the turn of the 14th century. The crusades, which had raged for over 200 years in the Holy Land, were over.

The sudden death of Emperor Frederick Barbarossa broke the will of the German crusaders, with many turning back to Europe before reaching the Holy Land



Europeans were exhausted from crusading by the 14th century



## The Templars by Dan Jones

Courtesy of Knightfall, you can discover the secret history of the Crusade's most famous brotherhood

The Knights Templar were the most powerful and wealthy military orders to come out of the Crusades. Originally founded around 1120 to protect Christian pilgrims in the Holy Land, these warrior monks eventually assumed greater power in the region. While the brothers personally swore an oath of poverty, by the mid-12th century the order itself had grown rich, even serving as a bank to kings. However, their wealth, influence and extensive landholdings eventually bred resentment. Following

accusations of blasphemy, on Friday 13 October 1307, King Philip IV ordered the arrest of every Templar in France. This began the destruction of the order, with Templars persecuted across Europe, their lands seized and their last grand master, Jacques de Molay, burned at the stake.

The Knights Templar have been recently brought back to life for *Knightfall*, a new drama on History UK. The show goes deep into the clandestine world of the legendary brotherhood, from their battles in the

Holy Land to their tragic dissolution.

To ensure factual accuracy, popular British historian Dan Jones served as a consultant on the show. Perhaps better known as a TV presenter for documentaries, Jones is also the author of the critically acclaimed bestseller *The Templars: The Rise and Spectacular Fall of God's Holy Warriors*, published by Head of Zeus.

Thanks to *Knightfall*, we have five copies of Dan Jones's *The Templars* to give away. For a chance to win, just answer the following question.

What superstitious day is often associated with the Knights Templar?

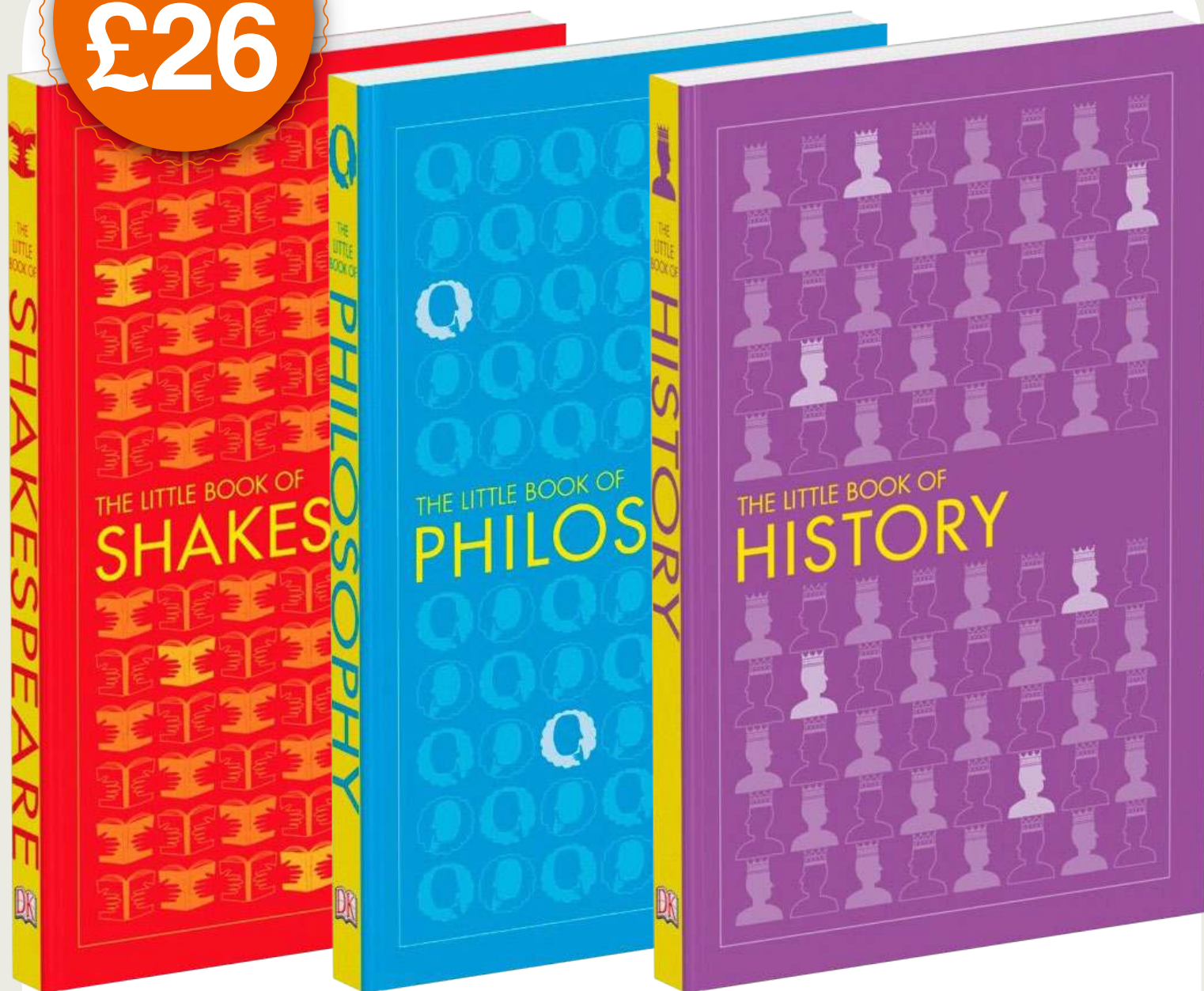
A. Monday 1st    B. Wednesday 31st    C. Friday 13th

Enter now at [www.historyanswers.co.uk](http://www.historyanswers.co.uk)

**Terms and conditions** The closing date for entries is 11 October 2018. Please be aware that answers must be submitted to the above website only. This competition is open to residents of the United Kingdom and Ireland only. Future Publishing has the right to substitute the prize for a similar item of equal or higher value. Employees of Future Publishing (including freelancers), their relatives or any agents are not eligible to enter. The editor's decision is final and no correspondence will be entered into. Prizes cannot be exchanged for cash. Full terms and conditions are available upon request. From time to time, Future Publishing or its agents may send you related material or special offers. If you do not want to receive this, please state it clearly on your competition entry.



Worth  
**£26**



## Free Big Ideas books

Subscribe by 31st October for our exclusive offer



A selection of three little books from the best-selling Big Ideas collection from DK books. With these compact books you can travel back in time to explore events in history, learn about the world of philosophy and discover the talent of Shakespeare.

**Jack Parsons**, Editor



ALL ABOUT  
**HISTORY**

Subscription offer



## Reasons to subscribe ...

- You'll never miss an issue!
- It's delivered direct to your door
- Brilliant value – save money on the cover price

## Subscribe now

[www.myfavouritemagazines.co.uk/AAHSEP18](http://www.myfavouritemagazines.co.uk/AAHSEP18)

or call 0344 848 2852 & quote AAHSEP18



**£26**

### PRINT

Six month subscription to All About History in print plus 3 Big Ideas books



**£35**

### PRINT & DIGITAL

Six month subscription to All About History in print & digital plus 3 Big Ideas books



\*Terms and conditions: This offer is only available for new UK subscribers. Gift is subject to availability. Please allow up to 60 days for the delivery of your gift. In the event of stocks being exhausted we reserve the right to replace with items of similar value. Prices and savings quoted are compared to buying full-priced print issues. You will receive 13 issues in a year. You can write to us or call us to cancel your subscription within 14 days of purchase. Payment is non-refundable after the 14 day cancellation period unless exceptional circumstances apply. UK calls will cost the same as other standard fixed line numbers (starting 01 or 02) or are included as part of any inclusive or free minutes allowances (if offered by your phone tariff). For full terms and conditions please visit: [www.bit.ly/magterms](http://www.bit.ly/magterms). Offer ends 31/10/2018.



# Ching Shih

42





# The Pirate Queen

How one incredible woman rose from a life of poor prostitution to command a fearsome fleet that ruled the South China Sea

Written by Jessica Leggett

**C**hing Shih is widely considered to be one of the greatest - if not the greatest - pirates of all time. Known as 'The Terror of South China', she commanded the infamous Red Fleet and effectively ruled the country's coastline in the early 19th century. At her peak, China's navy was too afraid to fight her, while merchants would simply pay her a tithe rather than risk being boarded. She commanded over 1,800 pirate ships and an estimated 80,000 men. In comparison, the infamous Blackbeard had just four ships and 300 men within the same century. Ching Shih's incredible success is arguably all the more extraordinary as she started out working aboard a floating brothel.

The so-called 'flower boats' of Pearl River, which flows through the city of Guangzhou, also known as Canton, acted as pleasure palaces for the rich and powerful. While they were luxuriously decorated with chandeliers and stained glass windows to attract customers, conditions were not so great for the women that lived and worked on them.

We don't know much about Ching's Shih early life, except that she was born around 1775 and possibly given the name Shi Xianggu. While she is popularly known today as Ching Shih, this is a Westernisation of Cheng I Sao, which literally means 'wife of Cheng I'.

The Cheng I in question was a notorious pirate who changed Shi Xianggu's life. How the

couple met is not known for certain. According to legend, Cheng stormed the flower boats with his crew to find himself a wife. Taking the women hostage, Cheng was captivated by the beautiful Shi Xianggu and proposed to her.

However, Shi Xianggu was not some damsel in distress looking to be rescued. When Cheng untied her restraints, she didn't just refuse his offer, she tried to claw his eyes out. Regardless - or perhaps because of this - Cheng remained enamoured and insisted on marrying her, offering her all the jewels and silks she could possibly want.

Showing the business acumen that would make her such a successful pirate queen, the future Cheng I Sao promised to accept but only if she was given half of his wealth and joint command of his extensive fleet. Cheng agreed and the couple wed in 1801, marking the start of a formidable partnership.

Piracy in the South China Sea had expanded rapidly in the 1780s, thanks to the Tây Sơn Rebellion in Vietnam. The rebels let the buccaneers use their many ports, while they in turn provided man power and even financial aid to fuel the insurgency.

Cheng I had made his name by uniting these disparate pirates into a mighty confederation known as the Six Fleets.

While he was the overarching leader of this pack, each fleet was semi-autonomous and identified by a colour: red, black, white, yellow, blue and green. After they married, the Chengs shared control of the most formidable group, the Red Fleet.

Crisis struck in 1802 when the Tây Sơn rebels fell out of power in Vietnam, leaving the Six Fleets without a safe harbour. The Chengs decided to re-establish their power along the coast of China, choosing to base themselves

43

At the dawn of the 19th century, Ching Shih worked out of Guangzhou



*"Cheng was captivated by the beautiful Shi Xianggu"*



# Ching Shih

at Macau and Guangzhou. From here, the Chengs ruthlessly grew their confederation while monopolising the salt trade, as the Qing government lost control of the waters with its small, neglected and ineffective navy.

But in 1807, Cheng suddenly died when he was thrown overboard during a typhoon and drowned. With the death of their leader, the remaining squadron leaders decided to elect his replacement - and Cheng I Sao was determined that it would be her.

Her biggest rival was her stepson, Cheung Po Tsai. Back in 1798, Cheng had kidnapped a 15-year-old fisherman. However, Cheng took a liking to him and the pair were said to have a homosexual relationship. The fact Cheng also adopted him might seem unusual, but adoption in China at this time was often practised between master and apprentice.

After Cheng I Sao joined the team, Cheung Po Tsai was given command of his own junk

and it was clear that the couple were lining him up as their successor.

To make her own bid for the top job, Cheng I Sao gathered the support of the most powerful men in the confederation, pressing on the loyalties and favours owed to her husband from both his family members as well as others in the fleet. Cheng I Sao made her case to the fleet leaders all while supposedly wearing her deceased husband's uniform, beautifully embroidered with dragons - giving rise to her nickname as 'the dragon lady'.

To dissuade Cheung Po Tsai from seeking power, she appointed him as the new leader of the Red Fleet to keep him busy and secure the loyalty of the confederation's most powerful squadron. However, not willing to take the risk that others might sway Cheung Po Tsai, Cheng I Sao entered into a sexual relationship with him to ensure his fidelity to her.



## ALL THAT JUNK

The classic Chinese vessel that powered Ching Shih's Red Fleet

### Supporting staff

Chinese junks had several tall and heavy masts to support its sails, with the biggest in the middle of the ship. There were many different types of junks, which were often characterised by the number of masts they had, ranging anywhere from one to seven in total.

### Eyes everywhere

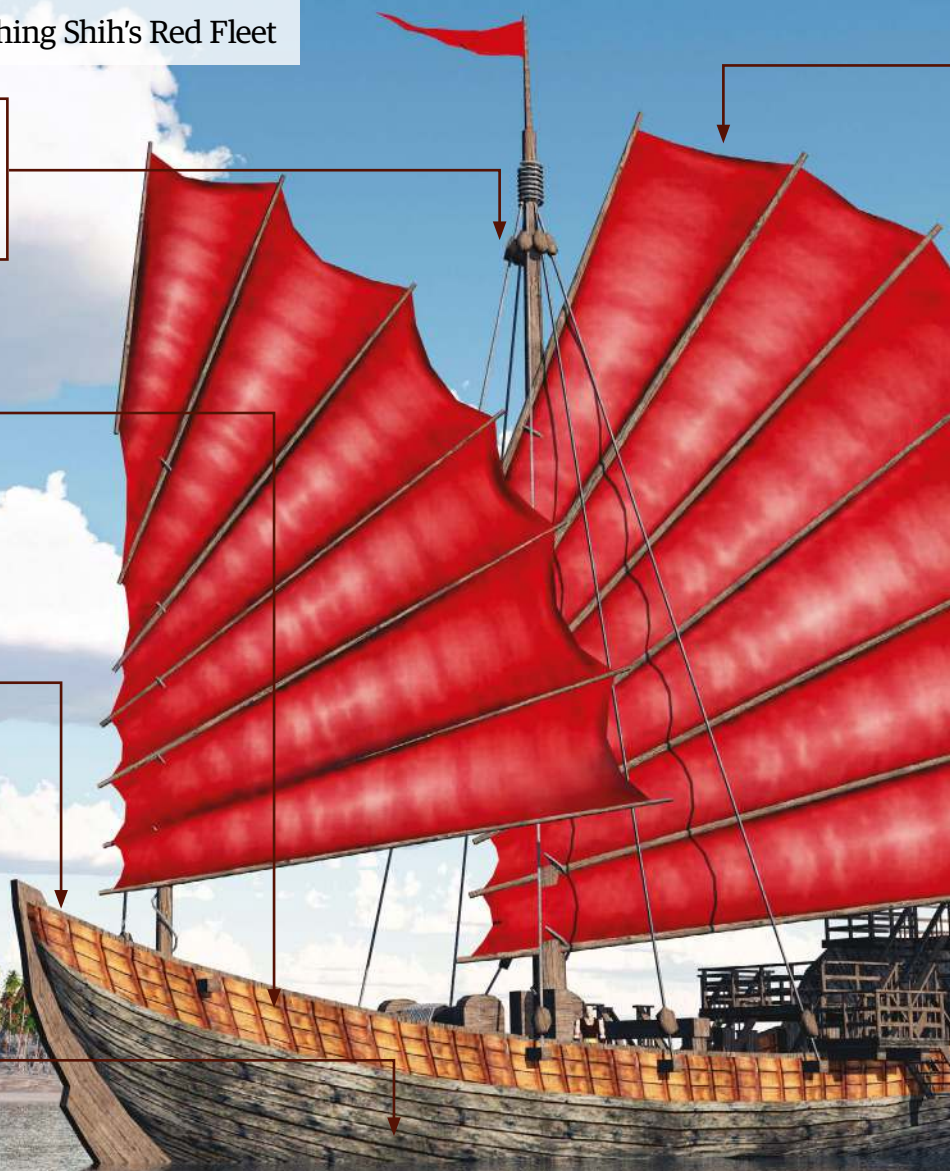
Chinese junks had painted eyes on the bow of the vessel, one for each side. This stemmed from the belief that not only could the eyes help the boat to see where it was going, but they also acted as protective deities.

### Strong and stable

To stop the junk from being swamped with water during heavy seas, the bow at the front of the junk and the stern at the back were built up high. Although these were designed to be high, the boat itself was flat bottomed because this made it easier to navigate junks in shallow and difficult waters.

### Chinese Innovation

The holds on Chinese junks were famed for being watertight, which ensured that any goods onboard would not be damaged. It was usually separated into compartments, which was apparently inspired by the shape of bamboo. In 1787, Benjamin Franklin commented on the usefulness of watertight compartments and how they should be used in the West.





Bold and fearless, Cheng I Sao was well-suited to the life of a pirate

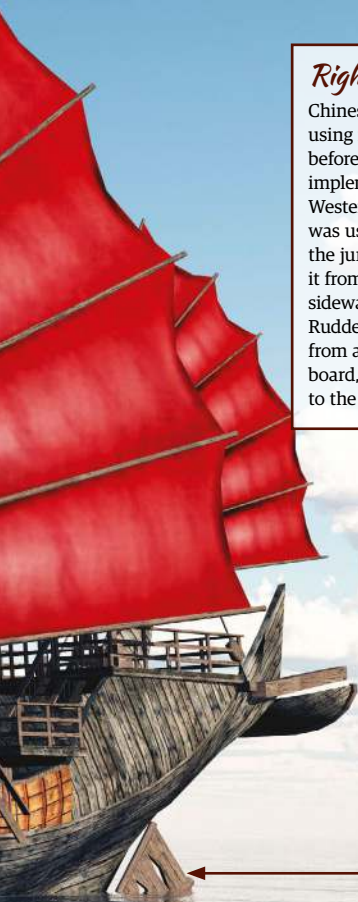


### *Smooth Sailing*

Junk sails were usually square or rectangular in shape, made from panels of linen or silk matting. Bamboo battens or strips were used to stiffen the sail so that it could stand against the wind and be rolled up easily. The sails could also be spread or closed with a pull and their flexibility made it easier to control the junk.

### *Right on course*

Chinese junks were using rudders long before they were implemented in Western ships. A rudder was used to help steer the junk and prevented it from slipping sideways in the water. Rudders were made from a large and heavy board, which attached to the back of the boat.



*"Cheng I Sao was so feared that admirals deliberately stayed ashore in order to avoid confronting her"*

Cheng I Sao was successfully named as her husband's replacement. She quickly made her mark by creating her own pirate code, which enforced discipline and set rules about how plunder was divided. She also regularised the income of the confederation by taking further control of the salt trade.

Following her orders, Cheng I Sao's fleets attacked merchant ships and government junks until the majority of them were under her control. These ships were then forced to continue working for her on her terms, with many salt merchants choosing to pre-empt her attacks by paying the confederation large sums of money to guarantee their safety.

Before long, this system encompassed other merchants such as fisherman, who paid extortionately for protection – to the point where nobody was safe unless they had paid Cheng I Sao and her pirates in advance.

With the income of the confederation growing rapidly, Cheng I Sao had financial offices built in coastal villages and harbours, which also acted as tax offices as payments increased. All payments had to be seen by Cheng I Sao while all the treasure that had been plundered by her fleets had to be declared and inspected.

But domination of the waters was not enough for Cheng I Sao, who initiated bloody raids on villages and markets along the Pearl River. The only way the villagers could prevent the attacks was to pay up, with either money or rice. Meanwhile, her spies wheedled their way into government, and local intelligence operations kept her informed of the latest news. The Qing government

was at a loss. By 1809, Cheng I Sao's confederation consisted of around 70,000 pirates, including men, women and children, with around 1,200 junks, far larger than the size of the Chinese navy, and attempts to defeat her had failed spectacularly.

In fact Cheng I Sao was so feared that imperial admirals

deliberately stayed ashore in order to avoid confronting her.

It has even been claimed that as far as sabotaging their own ships to prevent them from going out into the sea.

Cheng I Sao was an excellent military strategist and she unleashed crippling defeats upon her enemies. In one incident in 1808, she destroyed almost half of the Guangdong naval fleet by annihilating 63 of its 135 ships, which had been protecting Guangzhou. Capturing the men aboard, Cheng I Sao gave them a choice: join the confederation or die a brutal death. Unsurprisingly, the fearsome leader gained a number of recruits that day.

The situation reached breaking point in August 1809 when she and Cheung Po Tsai launched an attack on Guangzhou, and blocked the arrival of a tribute mission from Siam in just one day. Realising that they could not defeat Cheng I Sao alone, the government reluctantly requested help from the British and the Portuguese in September, borrowing men, ships and firepower.

The government's chance to defeat Cheng I Sao came two months later, when they trapped her fleet in a bay where it had stopped for repairs. Certain that victory was imminent, Chinese officials flocked to the bay to gleefully watch her demise. For eight days, the Imperial forces bombarded Cheng I Sao and her ships, but they still failed to sink her.

So instead, they sent so-called 'fire boats', vessels packed full of explosives, to denotate amongst Cheng I Sao's ships. The Imperial forces hoped their plan would succeed but fate

Cheng I leading his pirates into battle against the British in 1806





# Ching Shih

## CHING SHIH'S PIRATE CODE

Posted inside every ship in her fleet, Ching Shih ensured that everyone lived by her rules

### Rule 1

*Do not disobey an order or deliver one without permission*

### Rule 2

*Do not take more than the allotted 20 per cent from the common treasury*

### Rule 3

*Do not steal from villagers who had paid for protection, or who provided the confederation with supplies*

### Rule 4

*Do not rape or assault female captives*

### Rule 5

*A pirate may choose a wife from one of his female captives, but he must remain faithful to her*

### Rule 6

*Do not go ashore without permission or attempt desertion*

*Punishment for all: Death!*

While breaking most of these rules would result in a beheading, the first time a crew member snuck off ship they would simply have their ears cut off as a warning. However, if a crew member began a relationship with a woman, both they and their lover would be drowned.



This Qing era scroll depicts a battle between the government and the pirates in the South China Sea

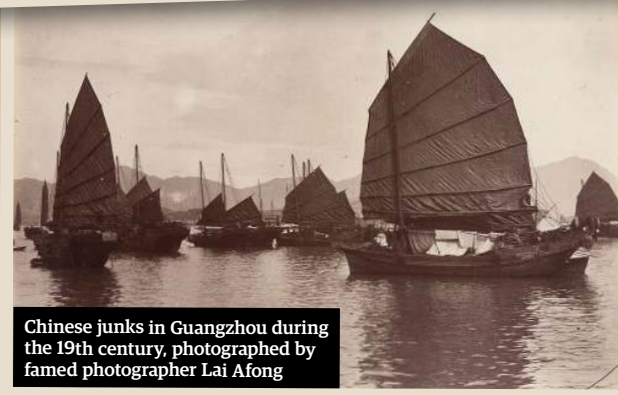
intervened, as the wind changed and pushed the fire boats back towards the government ships, breaking the blockade and allowing Cheng I Sao and her people to escape.

Cheng I Sao survived but by now, tensions had surfaced in the confederation - particularly between the Red Fleet and the Black Fleet. In December, the two fleets fought, with the Black Fleet emerging victorious. Realising they were out of options, the government offered the confederation amnesty, which the Black Fleet accepted in January 1810 - with over 5,000 pirates leaving Cheng I Sao's organisation.

It was not only the Black Fleet who were tempted by the offer. Looking at the state of her confederation, Cheng I Sao could see that the glory days of her pirate empire was slipping away. Choosing to negotiate while she still had the upper hand, Cheng I Sao boldly marched into the governor-general's headquarters at Guangzhou to discuss amnesty. To show that she was not there to start a fight, she arrived unarmed and accompanied only by women and children.

The Chinese government tried to deny some of her demands but Cheng I Sao was resolute on the terms she wanted in return for relinquishing her life of crime. Not only did she want to keep several of her junks for her own use, plus the treasure she had gained, she also requested pardons for all her men as well as positions in the navy for them.

After weeks of going back and forth, the government finally gave in



Chinese junks in Guangzhou during the 19th century, photographed by famed photographer Lai Afong

to her demands. In April 1810, Cheng I Sao and her pirates surrendered with a large proportion of their junks and cannons. At the same time, Cheng I Sao wrote a letter of surrender to the Chinese government, officially marking the end of her days as an outlaw. That year, her adoption of Cheung Po Tsai was dissolved and the couple finally married.

Following the break-up of the confederation, Cheung Po Tsai became an officer in the Imperial navy and enjoyed a successful career. With Cheng I Sao, he had two children and the couple remained together until his death in 1822.

Widowed once again, Cheng I Sao moved to Guangzhou where she ran a lucrative brothel and gambling house, living off the proceeds with her family.

Cheng I Sao, the woman who terrorised the South China sea for almost a decade and got away with it, died peacefully with her family by her side in 1844, aged 69.

Despite her death, Cheng I Sao's legacy has continued to live on with her tale of riches, lawlessness and glory still captivating people over 150 years later.

*"Cheng I Sao could see that the glory days of her pirates were slipping away"*



# HORRIBLE HISTORIES

TWO SHOWS  
LIVE ON STAGE!

## TERRIBLE TUDORS

## AWFUL EGYPTIANS

WHO'S THE  
DADDY?

FEATURING 3D  
Bogglevision

TOURING THE UK FROM SEPT!  
See tour dates at [birminghamstage.com](http://birminghamstage.com)



*Celtic Europe*



# Resisting Rome

Meet the Celtic barbarians that fought back against the ancient empire

Written by Katharine Marsh



## Ambiorix

This crafty king lured the Romans into an ambush

**T**he Romans did not consider the Eburone a threat, but under Ambiorix's leadership they massacred 6,000 legionnaires. Living in modern-day Belgium, the Eburone had long been clients to stronger tribes, who made them pay tributes and surrender hostages. So when Roman conquest freed them from their obligation in 57 CE, the soldiers thought Ambiorix's people would be grateful.

However, when the Romans themselves began demanding all tribes surrender a portion of their food supplies to local garrisons, Ambiorix decided to act. At first, the Eburone leader tried to besiege a Roman fort, but he didn't have the numbers. When this failed, Ambiorix approached the Roman commanders for parley, apologising for the assault and claiming he'd been pressured to do it by other tribes. He warned the Romans a Gallic uprising was coming and offered them safe passage through his lands.

Trusting Ambiorix, the Romans followed but when they passed through a ravine, the Eburone ambushed them, raining down javelins. As news of their victory spread, other tribes - including those that had formerly oppressed the Eburone - rallied under Ambiorix's banner. The Gaul had sparked the very insurrection he had warned the Romans was coming and it took Julius Caesar himself, armed with a vast cavalry, to stamp it out.



# BRENNUS

The warrior who brought the Republic to its knees

"**V**ae Victis" - meaning 'woe to the vanquished' - declared this war chief of the Senones tribe when he sacked Rome around 390 BCE. Originally Brennus had only laid siege to Clusium, a city about 120 kilometres north of the capital. But when the citizens appealed to Rome for help, the delegation that arrived only made things worse by insulting the Senones' honour.

Enraged by this slight, Brennus went on the warpath. Not even an encounter with the Roman Army at the River Allia could slow him down, the news of whose defeat led many to flee Rome before Brennus arrived. Still the Senones slaughtered 80 priests and patricians as they seized the city without resistance, setting up camp on the Palatine hill for the next six months. Eventually he was dislodged by Marcus Furius Camillus, with reinforcements from the surrounding cities. Brennus tried to lead his men to better ground for fighting, but he was pursued by Camillus and killed. Brennus's reign of terror over, Camillus was heralded as a hero and appointed dictator.



**"Ambiorix tried to besiege a Roman fort, but he didn't have the numbers"**



# CARATACUS

This British resistance fighter was hauled before Emperor Claudius

**W**hile Celtic Britain was a patchwork of tribal states, Caratacus was effectively the king of southern England in the early 1st century, ruling from modern-day Kent in the east to Gloucestershire in the west. While this made him a mighty ruler, it also meant he had a lot to lose when the Romans crossed the Channel in 43 CE.

An invasion force sent by Emperor Claudius landed right in the heart of Caratacus's territory. To avoid capture, the chieftain fled to Wales. But, while other British tribes capitulated to the new Roman governor Aulus Plautius, Caratacus led the native resistance. For years he fought a mix of pitched battles

and guerrilla warfare against the occupying force. But he was finally vanquished around 51 CE in the mountains of northern Wales by Plautius's successor, Ostorius Scapula.

To add insult to injury, Caratacus was sent to Rome so that he could appear as part of an imperial victory parade. This included an appearance before Claudius, in which the defeated chieftain declared, "If you wish to command everyone, does it really follow that everyone should accept your slavery?" However, in the same speech, he also struck a more conciliatory tone, promising to be an "eternal example of your clemency" if the emperor spared his life, which Claudius did.



## Celtic Europe



# Dumnorix

This lone dissenter turned on his brother to oppose Caesar's conquest of Gaul

**T**he Aedui tribe was closely allied with the Romans in the 1st century BCE. Their leader, Divitiacus, even mediated between Julius Caesar and the other Celtic tribes as the general invaded Gaul. However, not all of the Aedui supported Roman rule - not even Divitiacus's own brother. Known as Dumnorix, around 56 BCE he conspired with the Sequani and Helvetii tribes to overthrow his brother and force out the Romans. However, the plot failed when Caesar pushed back the invading Helvetii at Lake Geneva. However, Dumnorix had planned for this. He had persuaded his fellow Aedui not to supply the Romans with grain, so the Genevan forces quickly ran short of supplies. When Caesar found out Dumnorix was to blame, Divitiacus had to intervene to stop the Roman general from killing his brother.

Dumnorix wasn't done, though. When Caesar turned his attention to Britain in 54 BCE, he tried to take some high-ranking Continental Celts with him, but Dumnorix was having none of it. The future ruler of Rome was forced to wait for 25 days on the northern coast, while Dumnorix tried to convince the others not to go. This time Caesar did send soldiers to kill him. Defiant to the end, as he was struck down, it's claimed Dumnorix's final words were, "I am a free citizen of a free state!"

# Gaius Julius Civilis

A German-born Roman army officer with a grudge

**T**he chieftain of the Batavi in the 60s CE, Gaius Julius Civilis, was a little different - he was a Celt who had become a Roman citizen and joined the army. In fact, he served in one of the auxiliary units of the invasion of Britain under Claudius. But his time in the Romans' good graces was coming to an end.

In 68 CE, Civilis and his brother Claudius Paulus were arrested for treason. We don't know what caused the accusation, but Paulus was executed. Civilis managed to escape with his life when he was pardoned by Emperor Galba and he made his way to the Rhineland. But there he was arrested again.

The new governor there, Vitellius, pardoned him yet again to gain the support of the local troops. Civilis made his way back to his tribe where he discovered that they were all a little ticked off with being conscripted into the Roman army. A rebellion was born.

Being in the army, Civilis knew how he could defeat the might of Rome. He brought a neighbouring tribe into the fold and together they attacked Roman forts. The Romans had been caught off guard and the Celts used this to their advantage, decimating the auxiliary troops that had been sent to end their insurrection.

A Gallic empire was proclaimed and some Romans were forced to swear allegiance, but the civil war in Rome was almost over and attention was finally being turned to the provinces once more. Roman troops marched north and they met at what is now known as the Waal River. Civilis finally surrendered before vanishing into obscurity.



**"The Romans had been caught off guard and the Celts used this to their advantage"**



## Resisting Rome

# Boudicca

The Iceni queen who led a massacre of Roman soldiers

**I**n 43 CE, Prasutagus ruled the Iceni tribe in modern-day East Anglia, but it was his wife who would go down in history. Prasutagus wanted to keep his family and his kingdom safe - in his will, he left his territory and wealth to his daughters, but Emperor Nero was made co-heir. With the Romans on side, what could go wrong?

It turns out that Prasutagus hadn't entirely thought it through. The governor of Britain, Suetonius Paulinus, wasn't the kind to go along with this. When the Iceni king died, Paulinus plundered his lands. Then he went a step further - he dragged Boudicca out and had her publicly flogged, while her daughters were raped by Roman slaves. Led by Boudicca, the Iceni had one response - all-out rebellion. No Romans were spared - according to Tacitus, 70,000 were slaughtered, and the number included Britons who were in support of the Roman conquest. They even

found the 9th Legion and hacked it to pieces. Camulodunum, Verulamium and part of Londinium (Colchester, St Albans and London, respectively) were all razed to the ground. Boudicca was having her slice of revenge.

It would never last. The only reason the rebellion had gone on so long was because Paulinus had been away. Now he was back, and it was his job to put a stop to it.

A bloody battle ensued and the Iceni were defeated. No one knows exactly how Boudicca died - the most prevalent theories are that she poisoned herself or died of shock - but it was the end of one of the most famous revolts against Roman rule the ancient world had seen.

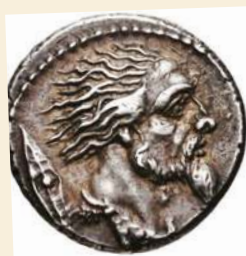
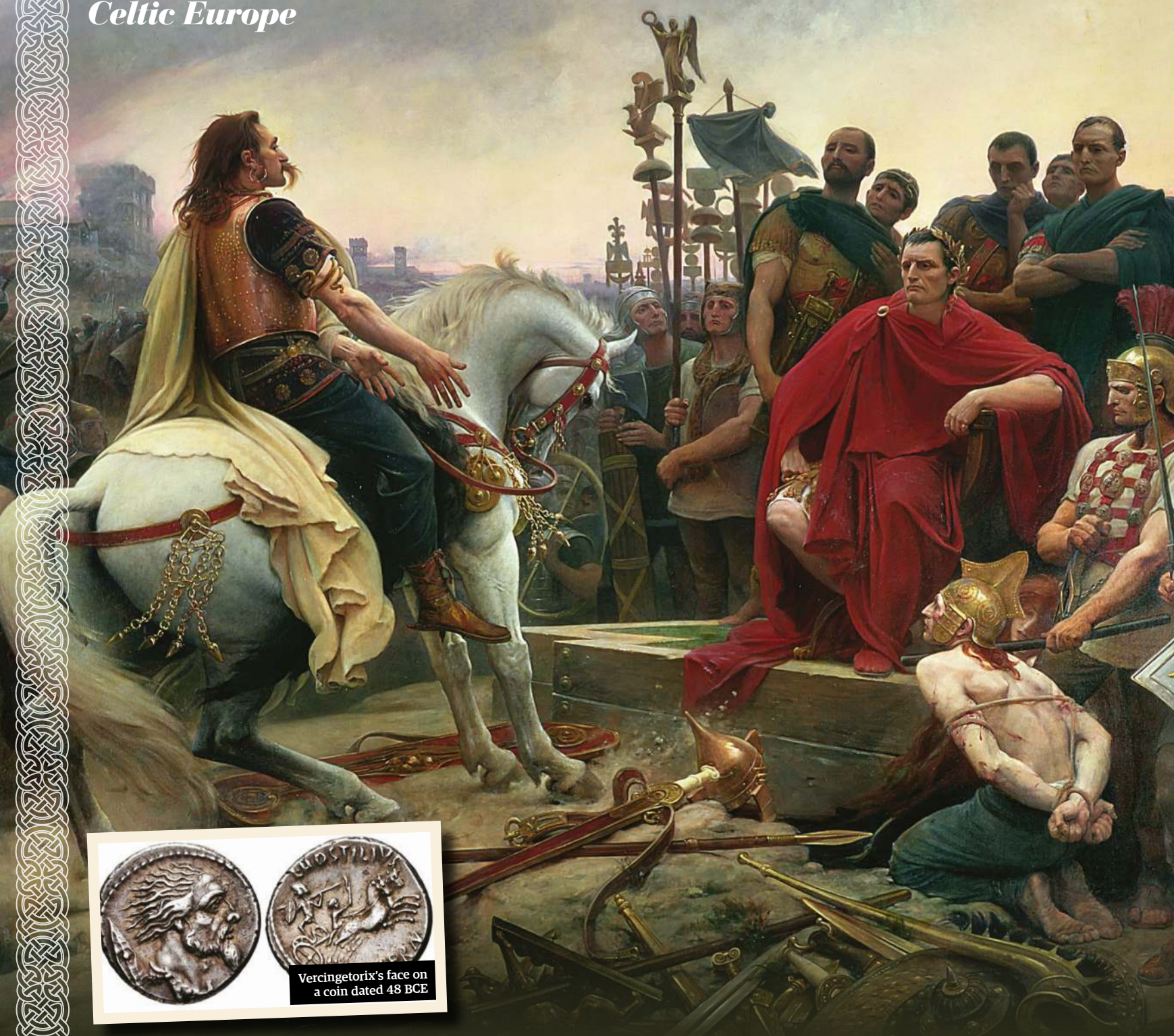


Boudicca remains a British folk hero





## Celtic Europe



Vercingetorix's face on a coin dated 48 BCE

# VERCINGETORIX

Leading a rebellion against the Romans never goes well

**J**ulius Caesar's Gallic Wars saw the Roman general and statesman fight many Celtic tribes across Gaul, but he perhaps didn't expect them to rebel. When Vercingetorix led an uprising against the hostile Roman troops around 52 BCE, Caesar dug through snow drifts six feet deep to reach his troops and put the insurrection down.

The Gallic tribes refused to accept that they had been conquered. Caesar had begun putting Roman law into practice and was pushing Roman culture on the Celts. When others, like the Eburones, tried to rise up, they were massacred. Vercingetorix wasn't okay with that. He took it upon himself to get the Romans to leave.

In 52 BCE, he avenged the Eburones by decimating a Roman settlement and then handed out the food and weapons stored there to his own people. Messengers were sent all over Gaul inviting other tribes to join the cause. A guerrilla war was underway.

The Celts attacked Roman supply lines and then vanished into the hills – the Romans, now under Labienus, didn't stand a chance. Until Caesar came back. When Caesar learned that Vercingetorix and his men were bunkered up in a fort in Alesia after a failed attack, he began a siege on it. With 60,000 men, he forced the Celts to surrender and Vercingetorix was captured and taken to Rome. He would be executed six years later.



# Viriathus

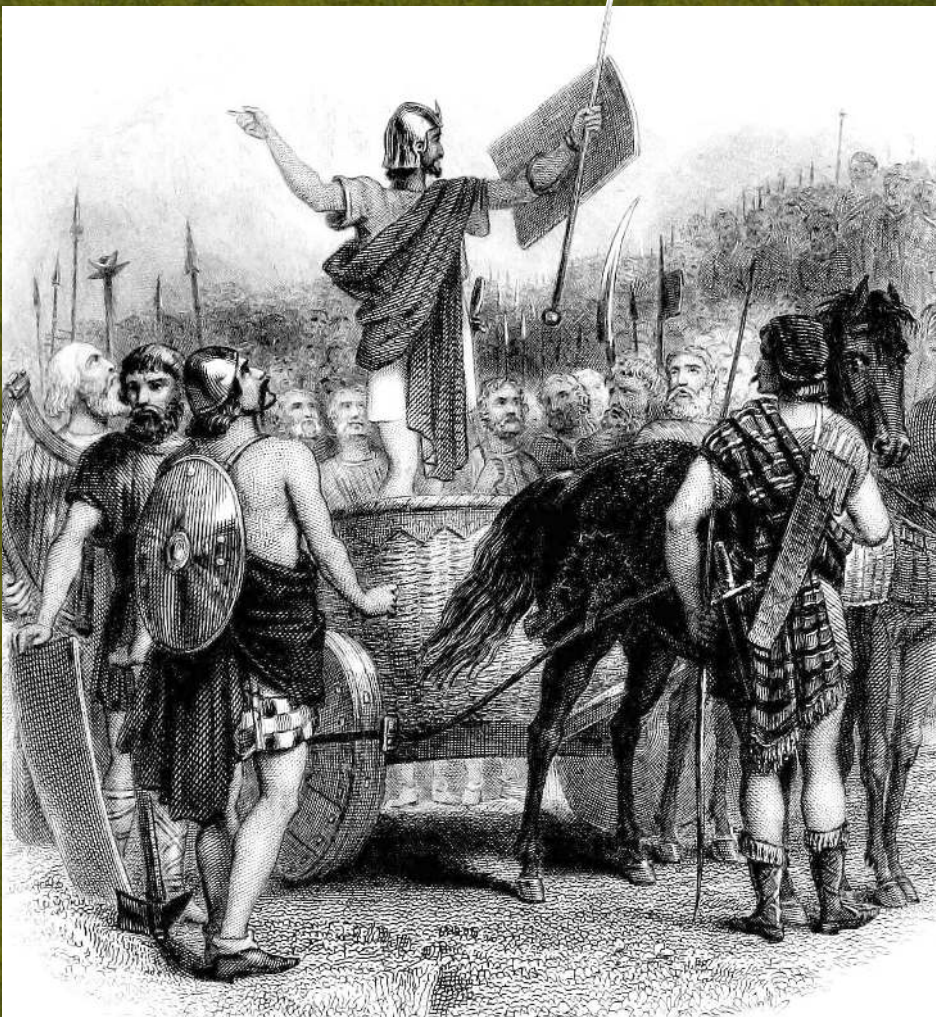
A shepherd who became 'the terror of the Romans'

**M**odern-day Portugal was home to the proud Lusitanians, who thrived on self-sufficiency (and occasionally crime). But as the Romans made their way onto the Iberian Peninsula, their way of life became threatened. The Romans began their task of pressing them into submission in 151 BCE - and almost succeeded. They managed to lure the Lusitanians from their mountains with the promise of fertile plains, and then slaughtered them. Few escaped, but one who did was Viriathus - and he was out for revenge.

Viriathus had been a shepherd or a huntsman, but now he became a military mastermind. He knew how his men worked and he knew the lay of the land, conducting the fighting in the mountains in the beginning to give his men the upper hand. When the Romans tried to offer a truce, Viriathus reminded his people of the massacre and the wrongdoings they had suffered at the hands of the invaders. He was officially elected as their leader.

Feigning a retreat, Viriathus led his enemies into an ambush. After that, the empire suffered defeat after defeat at the hands of the Celt they called Terror Romanorum - 'terror of the Romans'. It was only in 142 BCE that Viriathus was forced to retreat back to Lusitania. But he wasn't finished - a year later, he stole into a town and fought against its Roman besiegers. However, the Romans bested him again and escape was impossible, so a deal was struck.

The Romans could leave the town uninjured and the Lusitanians got to keep their territory. But Viriathus was always a threat to the Romans, so they had him murdered in his sleep.



# Calgacus

The man who kept the Romans out of Scotland

**T**he first recorded Caledonian was consigned to history for a reason. Calgacus was chief of the Caledonii in the Scottish Highlands and he headed a resistance force as the Romans worked their way further up Britain. Under Gnaeus Julius Agricola in the early 80s CE, the Roman legions made their way as far north as the river Spey in Moray - a county wedged between Inverness and Aberdeen today.

The Caledonii, understandably, weren't too happy. They allegedly attacked the Romans' supply and communication lines, much to the legions' annoyance, and the invaders only managed to stop them with significant difficulty.

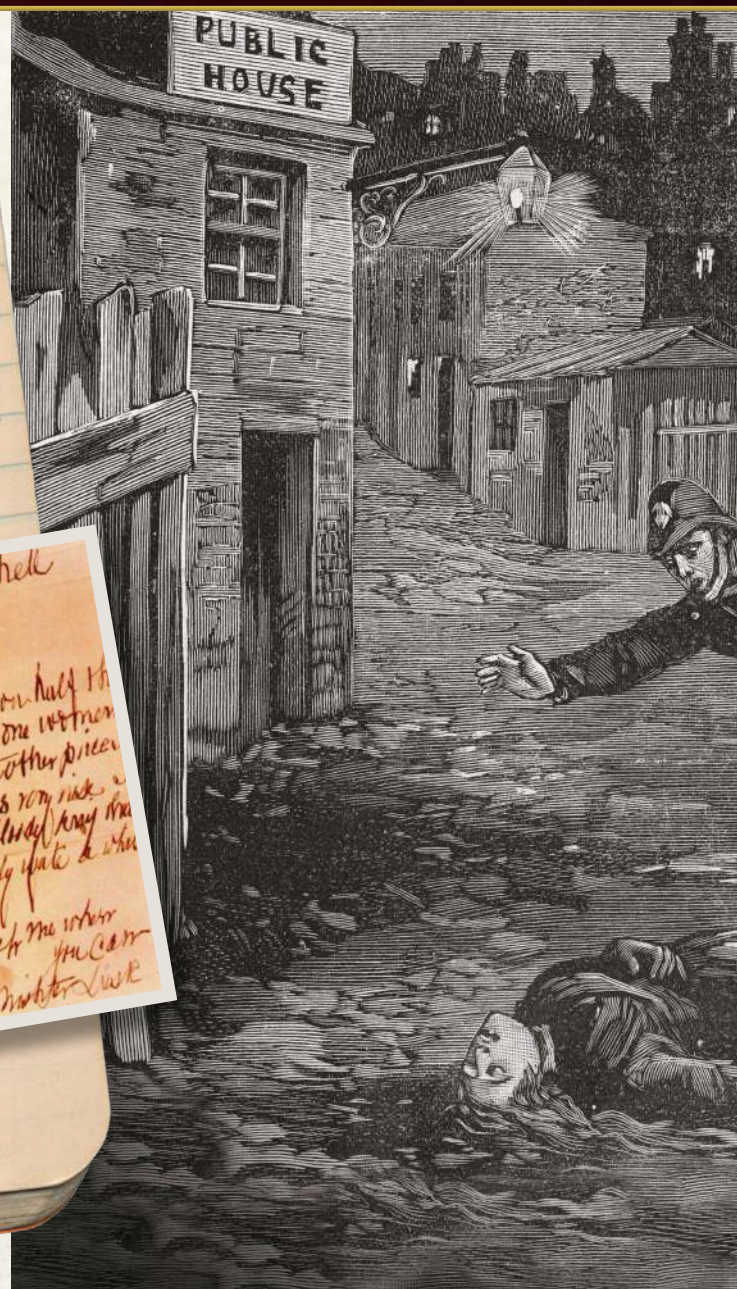
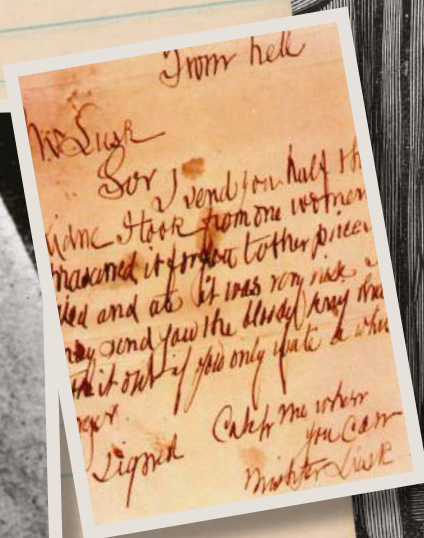
But the Romans weren't done with the natives. Around 85 CE, the Caledonii were set to gather on a hill. There were supposed to be about 30,000 of the Scottish Celts meeting on Mons Graupius, which is thought to be Bennachie near Inverurie in Aberdeenshire. The Celts, led by Calgacus, were no match for the seasoned Roman army, though. Their war chariots bumped around on the uneven ground, not getting them off to the best start. The real kicker came when the Romans were reinforced with 2,000 cavalry. According to Tacitus, the Caledonii lost 10,000 men while the Romans only lost 360. Calgacus was one of the survivors but the battle put a damper on Scottish resistance to Roman rule until the 100s CE, when Hadrian's Wall was built.



# CSI: WHITECHAPEL

*When the Met Police were called on to find Jack the Ripper, would the newest forensic techniques help them?*

Written by Nell Darby



**W**hen a ruthless killer struck in the heart of East London in the autumn of 1888, there was ample opportunity for the capital's policemen and detectives to employ a range of forensic science methods to help them catch a killer. The subsequent crime investigations, had they used these new techniques, might have been more successful than they ultimately proved to be.

The first woman now regarded to be one of the 'canonical five' victims of Jack the Ripper was Mary Ann Nichols, who was found dead in the early hours of 31 August 1888 in Buck's Row, Whitechapel. The police investigation started with traditional methods, questioning those in the neighbourhood - in particular, the local prostitutes who worked the streets there.

Nine days later, at 6am on 8 September, a second woman was found in the backyard of

29 Hanbury Street - Annie Chapman. On 30 September, Elizabeth Stride was found in Berner Street, and less than an hour later Catherine Eddowes was found dead. Prior to Catherine's murder, all the killings had taken place in parts of East London that came under the jurisdiction of the Metropolitan Police; Eddowes, however, was found in Mitre Square, part of the Square Mile, and so the Met was now joined by officers from the City of London Police in their investigations.

It was reported that after killing Catherine Eddowes, the alleged murderer had walked from

Mitre Square to Goulstone Street, where he had thrown away a piece of Catherine's apron, on which he had wiped the blood from his hands and knife. Nearby, he had written on a wall, 'The Jews are the men that will not be blamed for nothing'. On 1 October, the police revealed that the Central News Agency had been sent a letter the previous week purporting to be from the murderer. It was addressed 'Dear Boss' and signed 'Jack the Ripper' - a name that caught the public imagination. Now, a link was made between the writing in this letter, and that of the graffiti, with the press

"The police investigation started with traditional methods, questioning those in the neighbourhood"





The police find a victim of Jack the Ripper, lying openly in the street

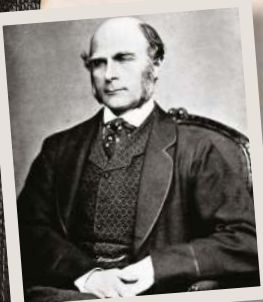
## FORENSIC PIONEERS

The founding fathers of crime scene investigation

### Francis Galton

Specialism: Fingerprinting

This British scientist brought scientific rigour to the analysis of fingerprints, after he produced a study of their uniqueness in 1888. Galton also created the first fingerprint classification system, which would provide the basis for the system introduced by Scotland Yard in 1901 and swiftly rolled out across the English-speaking world.



### Alphonse Bertillon

Specialism: Mugshots

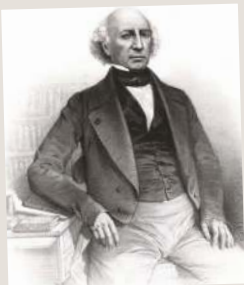
This French police officer standardised how mugshots were taken, so that they always included a front view of the face and both side views. He also introduced a system of measurements to better record suspect's physical features. The Paris Police Prefecture first used Bertillon's methods in 1882 and by 1887 it was being used as far afield as Illinois.



### Mathieu Orfila

Specialism: Toxicology

Often called the 'Father of Toxicology,' this Spanish-born chemist was an early pioneer in the field of identifying poisons. In 1814, he wrote his *Treatise On Poisons*, and he was regularly called on to give evidence in trials, most notably in the 1840 murder trial of Marie Lafarge. Orfila also researched asphyxiation, the decomposition of bodies, and exhumation.



### Bernard Spilsbury

Specialism: Pathology

Britain's most celebrity CSI, Sir Bernard became a career expert witness after his forensic evidence convicted Dr Hawley Crippen for killing his showgirl wife, in a case that captivated Edwardian England. While he was a hard-working pathologist, believed to have completed around 20,000 autopsies, new research suggests his fame may have wrongly swayed both judges and juries, leading to several miscarriages of justice.



### Edmond Locard

Specialism: Clothing analysis

The so-called 'Sherlock Holmes of France' wrote a seven-volume series, *Treaty Of Criminalistics*, that argued whenever two surfaces touched, something would be transferred from one to the other - fibres, paint, blood, and so on. Therefore, as part of this 'exchange principle', the microscopic examination of clothing could reveal minute pieces of evidence.



suggesting the two were similar. However, the chances of checking this were nil, as police called to the scene were concerned about crowds gathering out of curiosity to read the graffiti, or rioting breaking out due to the anti-Semitic message it contained, and gave orders for it to be erased with a sponge. This led to criticism from the press, who were apparently more aware of the importance of handwriting analysis than the police. Contemporary media commentators rightly argued that had the writing been photographed before being erased, it could have been analysed and compared to the writing in the Central News letter, thus either linking both letter writer and graffiti artist to the crime, or exonerating one or both.

The Metropolitan Police has since been excused for some of its perceived failings on the grounds that forensic science was not, at the time, an



# THE SCENE OF A CRIME

The killing ground can contain many types of forensic evidence

## 01 Forensic footwear evidence

Footwear and footprint analysis is a form of forensics that was used by Sherlock Holmes in two of his cases *A Study In Scarlet* (1887) and *The Sign Of The Four* (1890), and he noted that "there is no branch of detective science which is so important". Footwear impressions can tell investigators the number of people at a crime scene, the type of footwear, and even the wearer's approximate height. Widely used today, the study of footwear was initially slow to take off.

## 02 Handwriting analysis

The subject of graphology - the study of handwriting - had interested philosophers since the 17th century, but it was in the 1870s that Frenchman Jean Michon published his research into handwriting analysis. In 1871, Rosa Baugham did the same, and the *Strand* magazine similarly published articles on the subject. From the 1890s, as psychology developed as a profession, the area started to attract considerable research. Handwriting analysis involves looking at shapes and patterns in writing to see how they reflect the writer's personality.

## 03 Poisons and toxicology

Toxicology is 'the science of poisons'. Poisoning, particularly by arsenic, was a common way to murder someone in the 19th century as for a long time arsenic went undetected inside the body. However, by the 1850s, post-mortems could find arsenic grains in murder victims' stomachs. In 1888, a military surgeon, Philip Eustace Cross, was hanged in Cork for murdering his wife, Mary. The crime was detected only after Mary's body was exhumed, and an examination showed symptoms of arsenic poisoning.

## 04 Bullet matching

Back in 1835, the Metropolitan Police located the purchaser of a bullet by looking at flaws in that bullet and then finding the mould used to make it. It was also found that tiny marks or flaws in bullets could help locate the gun barrel those bullets had come from. But it was still difficult to confirm these facts, though, and it was not until 1926 that bullet matching could be used as evidence in court trials.

## 08 Forensic odontology

It's a grand name, but it simply refers to the analysis of bite marks and dental remains. The use of bite marks in trial evidence dates back to late 17th century United States, but the first use of bite mark evidence to convict a criminal in England occurred in 1906. In this case, the offender, a burglar, had left a bite mark in a piece of cheese at the crime scene; his teeth were found to 'fit' the mark.

"Other victims had been found outside and police had been keen to remove their bodies as soon as possible"





## 05 Clothing analysis

The analysis of clothing or footwear can reveal fibres transferred from one individual to another, evidence of a change in location – for example, looking at mud or other substances in the tread of footwear – and even traces of blood, saliva or semen that can help identify either a victim or a suspect. This type of analysis was popularised by Edmond Locard in France, but it has since become a fundamental part of the forensic scientist's work.

## 06

### Fingerprint analysis

In 1892, the first ever fingerprint bureau opened in Argentina after a notorious murder case where the murderer was identified by a bloody fingerprint. Sir William Herschel used fingerprints to identify individuals in India, but in the UK, Francis Galton was at the forefront of fingerprint analysis. In the Edwardian era, one man convicted of burglary following successful fingerprint analysis was William Brown, who robbed a shop in Poplar, East London, but had left his prints on a window.

## 07 Blood type

Given that blood can so often be left at a crime scene, it is not surprising that it is a valuable form of evidence. In the 1860s, spectrum analysis was used to locate bloodstains, and other processes were developed in the 1880s. In 1900, the blood groups – A, B and O – were identified and so led the way for blood type analysis, whereby blood left at a scene could be identified as a victim's – or the suspect's.

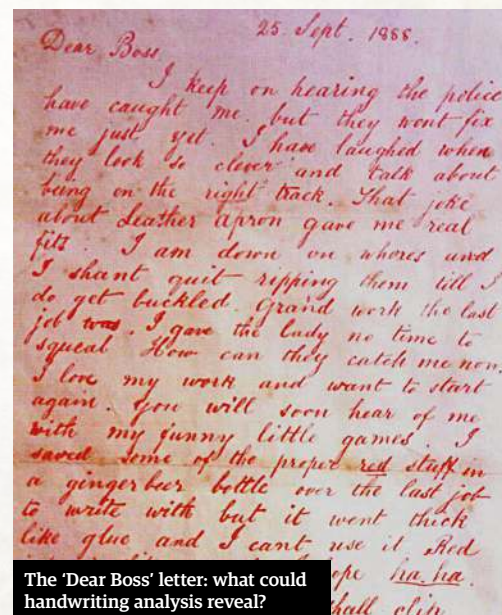
'integral' part of criminal investigation, and that scientific evidence was not recognised as an important part of criminal investigations until the 1890s.

However, the Met did use photographs of victims and crime scenes as part of its investigation, although these crime scene photographs were not done as we would today, or for the same reasons. Whereas today they record the scene, the victim, and potential evidence or clues, during the Whitechapel murders, photographs of the victims' eyes were said to have been taken. This was due to the mistaken belief that a dying person's eyes would record the final image they had seen. Therefore, it was hoped that the Ripper victims' eyes might preserve an image of the murderer, caught in the act of killing. Although this sounds absurd to us today, the Victorian era was a curious mix of modernity and superstition, and as with other cases during the 19th century, the Jack the Ripper investigation combined modern techniques with the traditional, and even the supernatural.

Surviving photographs from the time include mortuary photographs of four victims, as well as images of the final victim Mary Jane Kelly's body in her bed. Other victims had been found outside, in the East London streets, and police had been keen to move their bodies as soon as possible to prevent onlookers gawping or panic setting in – although drawings were made of where Catherine Eddowes was murdered.

In Mary Jane Kelly's case, however, she was murdered in her lodgings at 13 Miller's Court, in Spitalfields, on the night of 8 November. Her body could be left where it was as it was indoors, away from prying eyes. However, the infamous image of Kelly's mutilated body in situ only came into existence thanks to the failure of another method of forensic examination.

Although police were called upon Mary Jane's body being discovered, they loitered outside her lodgings for some time, rather than going straight



The 'Dear Boss' letter: what could handwriting analysis reveal?

in. Inspector Frederick Abberline, a Scotland Yard man who had been seconded to H Division in Whitechapel after Mary Ann Nichols's murder, believed bloodhounds had been sent for and did not want officers to contaminate the crime scene until after the dogs had been.

However, as time passed and the dogs still had not appeared, Inspector Abberline decided to start without them. Reasoning one man entering the lodging was better than a large group, a local photographer was sent for and told to take pictures of the body as it lay on the bed.

Even when it became apparent two hours later that the sniffer dogs would not be coming, the police instigated a more forensically advanced plan than with previous victims. In such a horrific scene as Mary Jane Kelly's room, Abberline concluded there must be some clues preserved somewhere, and that these merited a proper crime scene investigation. They therefore left her body on the bed while they carried out a full, in-depth,



Some Victorian criminals tried to avoid having their mugshots taken



## Forensic science

examination of the poverty-stricken woman's rooms. Unfortunately, the inspector was forced to report that "nothing [was found] of any assistance to us".

Abberline's assumption that bloodhounds might be called in was not a fanciful one. Sniffer dogs had already been used elsewhere, for centuries, in order to find missing people and animals. Met Police Commissioner Sir Charles Warren, under pressure to catch the killer, debated the use of hounds, wondering whether dogs would be able to track a scent if the killer left any clothing or blood behind, or whether an outdoor, urban crime scene would involve so many passers-by that the dogs would be confused. To find out more, in the early morning of Tuesday 9 October 1888, Sir Charles arrived in Regent's Park to watch a group of bloodhounds at work, to see what they could do.

The dogs were owned by Yorkshireman Edwin Brough, who had spent a considerable amount of time both breeding and training his hounds. He had got in touch with the Metropolitan Police nearly a week before Kelly's murder to highlight the use of bloodhounds in tracking criminals, and the police arranged for him to come down to London with two of his dogs - Champion Barnaby and Burgho. Prior to Sir Charles visiting, Brough practised twice with his dogs - once in Regent's

Park the morning before, and once in Hyde Park that evening. Both times, the dogs were successful in tracking a young man who was given a 15-minute start, despite the first occasion being frosty and the second dark. When the dogs were made to track more individuals at 7am on Tuesday morning, they again proved a success. Six runs were made in all, with Sir Charles himself gamely acting as the hunted man on two occasions. They proved that they could track down a stranger they had not met before, and Sir Charles, although he didn't express an opinion publicly at the park, seemed pleased with the result.

Police were ordered not to remove the next victim's body, but to instead send word to a named vet who owned several bloodhounds and would be taken to the crime scene to immediately put his dogs onto the scent.

Of course, this all depended on the next victim - and it seemed to be assumed that there would be another victim - being found in circumstances that lent themselves to the use of dogs.

In the event, however, hounds were not used - although Burgho and Barnaby had been shown to have skills, the police were concerned about spending money on these relatively inexperienced dogs. When the Met failed to either buy or hire the dogs, their owner left London



This illustration of Jack the Ripper owes much to Sherlock Holmes

with them. Unfortunately, though, as Abberline's confusion showed, not everyone was told that the bloodhounds were no longer available.

The police of the time lacked much of today's knowledge and techniques, but they did try and work with what they could. When Elizabeth Stride's body was discovered, police examined locals' hands and clothing to try and find bloodstains. They searched the walls near to where the body had been found in case they could find blood from the murderer on it, but again had no luck.

Although DNA testing was not in existence then, they knew the importance of finding blood and matching it to a victim, or conversely, ruling it out and suggesting that it might come from a suspect instead. However, they were hampered at various scenes by onlookers crowding round and potentially damaging the crime sites; for example, when Mary Ann Nichols's body still lay on the ground, the doctor who attended was startled by the number of ghoulish onlookers and ordered the body to be removed and taken to the mortuary to be examined, thus perhaps rushing the examination of the crime scene in order to preserve the dead woman's modesty and privacy. The police also claimed to have been hampered by the inefficiency of others - for example, despite the police allegedly giving instructions that Nichols's body was not to be removed again until a full post-mortem had been carried out, two men went and stripped her body, and washed it down (and potentially removing evidence), and getting rid of her clothing. A lack of organisation from some parties may have restricted the chances of finding a killer, even though there was clearly knowledge of where evidence could be found and what techniques might help in finding it.

"Scotland Yard opened its own fingerprint department in 1901, too late for the Ripper victims"

Those investigating early 20th-century crime scenes employed new scientific methods





The relatively new Criminal Investigation Department of the Metropolitan Police was, inevitably, hampered by the fact that some forensic techniques were still in their infancy and other methods had not yet been invented.

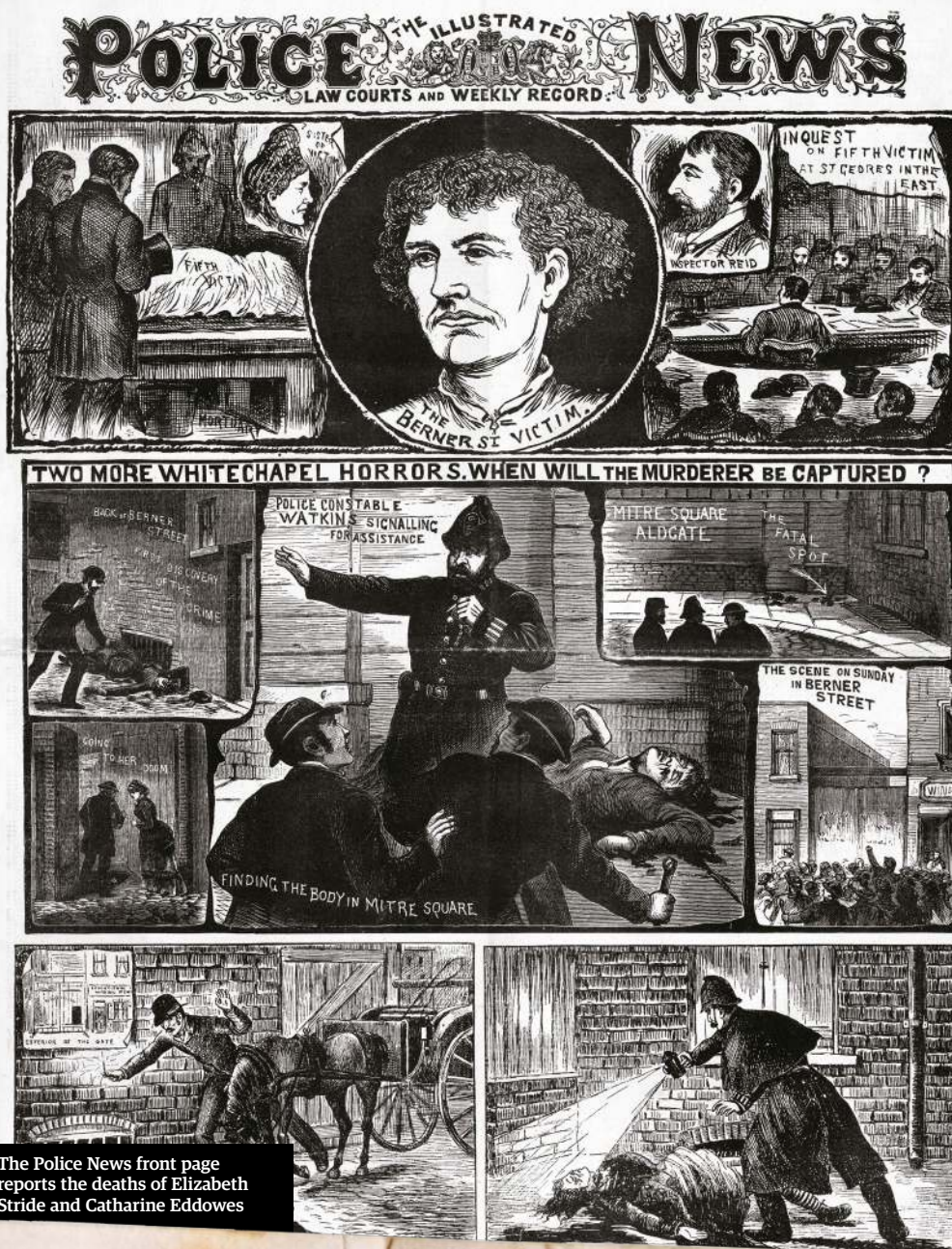
There was certainly blood, but not, apparently, bloody footprints, although the presence of onlookers at some of the crime scenes may have made it impossible to even try and obtain prints.

In addition, at that time, not only was there no DNA testing, but it was not possible to distinguish between animal and human blood - hence the concern at what kind of blood trail hounds would follow. Fingerprinting was about to take off, with the 1890s seeing individuals develop classification systems that recognised the uniqueness of fingerprints - and a careful study of both outdoor and indoor crime scenes in East London might have located fingerprints that came from someone other than the victim. Scotland Yard opened its own fingerprint department in 1901, too late for the Ripper victims.

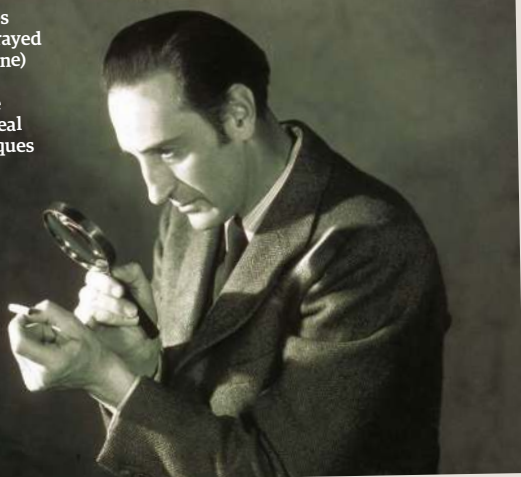
In other respects, though, reports do not suggest that other techniques were considered, even when they existed at the time. For example, Sir Arthur Conan Doyle had written about the value of footprint analysis the year before the murders in *A Study In Scarlet*, but there is no mention of footprints - either their presence or absence - in the press.

Anthropometrics, the identification of criminals by their appearance, which could have helped to rule in or rule out any suspects, had been invented in the 1880s, but Scotland Yard only started to use it years after the murders took place.

In investigating Jack the Ripper, the police tried to use a mix of old and new techniques with little success. If they had been able to use all the forensic methods being developed over the late 19th and early 20th century, perhaps they might have had more luck and we would have the answer to who Jack the Ripper actually was.



Sherlock Holmes (seen here portrayed by Basil Rathbone) may have been fictional, but he utilised many real forensic techniques



## SHERLOCK HOLMES, FORENSIC SCIENTIST

Fictional detective Sherlock Holmes once stated to his friend Watson that, "Detection is, or ought to be, an exact science", and from his first appearance in print in 1887, his methods were as scientific as possible for the era.

Holmes was a truly modern detective: his work both reflected developments in Victorian crime detection, and heralded today's era of scrupulous and methodical forensic science techniques. Sir Arthur Conan Doyle incorporated the latest developments in criminal science into his creation, and even, in some cases, pre-empted them.

Holmes even had his own chemistry lab, where he could spend hours studying and conducting experiments. The Holmes stories also show him using techniques such as footprint analysis, graphology, toxicology (working out in *A Study In Scarlet* that a man has been poisoned with arsenic), and even using a sniffer dog - anthropometrics, fingerprint analysis, and ballistics all get a mention, too. Sherlock Holmes was, then, a forensic scientist at heart, using criminal investigation tactics far before his time - and long before even the police did.



# MANSA MUSA

# THE RICHEST MAN IN HISTORY

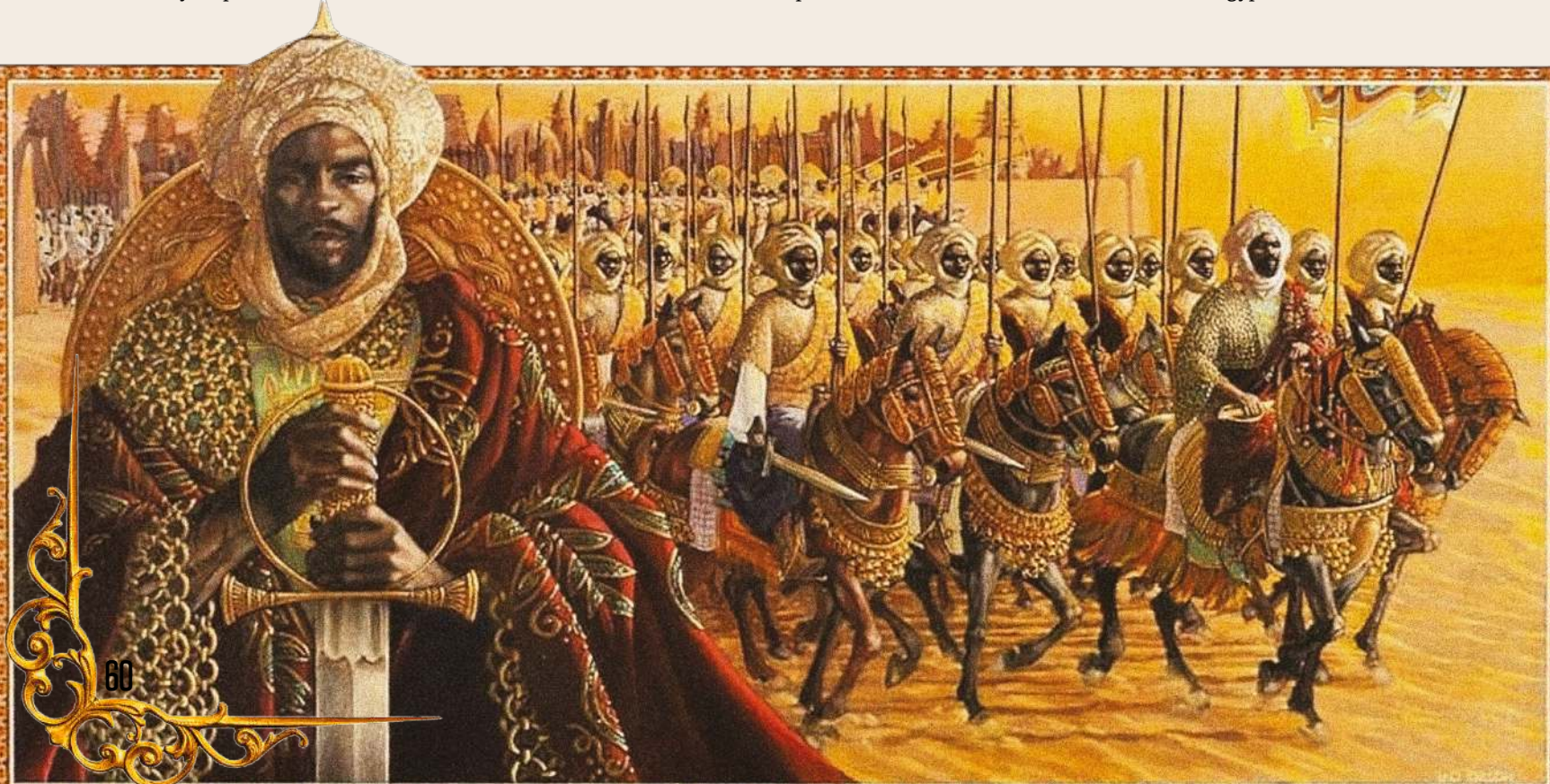
The Emperor of Mali was the wealthiest man on the planet - but you've probably never heard of him

WRITTEN BY JEM DUDUCU

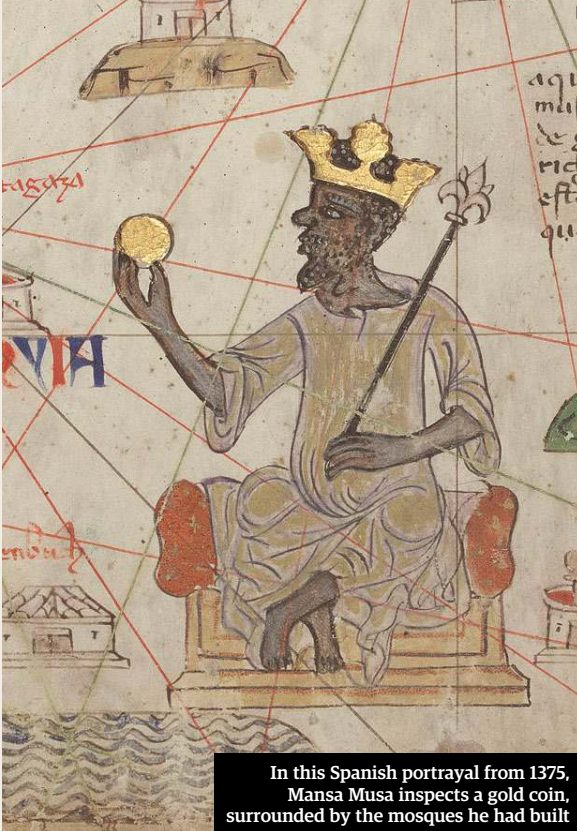
If you wanted to describe someone as wealthy, you might say that they are as 'rich as Crassus' or call them 'a Rockefeller'. However, while Ancient Roman businessman Marcus Licinius Crassus and American oil baron John D Rockefeller have become bywords for extravagant wealth, their respective fortunes were paltry compared to Mansa Musa, the 14th century emperor of Mali.

The Mali Empire (which in the West African Manding languages is known as Manden Kurufaba) was founded in the early 1200s and lasted into the late 1600s. It started in Niani, a town in the very east of modern-day Guinea, located on the banks of the River Niger. In the early part of the first millennium, the West African Ghanian Empire declined to the point where territories on its fringes felt emboldened to make a move for independence.

This was, of course, to the detriment of the old regime. At the same time, trade routes started to change in favour of the region around Niani which had been a Muslim region for centuries. It was positioned at the end of a vast trade network, which spread from Spain to Persia and whose epicentre was the Persian capital of Baghdad. Another important place was Cairo, the seat of the Muslim Caliph, as well as the economic centre of Egypt.







In this Spanish portrayal from 1375, Mansa Musa inspects a gold coin, surrounded by the mosques he had built

## “TRADE ROUTES STARTED TO CHANGE IN FAVOUR OF THE REGION OF NIANI”

Trade plus growing territories enabled a new dynasty of rulers to emerge. The first of these was Sundiata Keita, also known as the Lion of Mali, who ruled from roughly 1235-1255 as 'Mansa'. This is a local word for emperor.

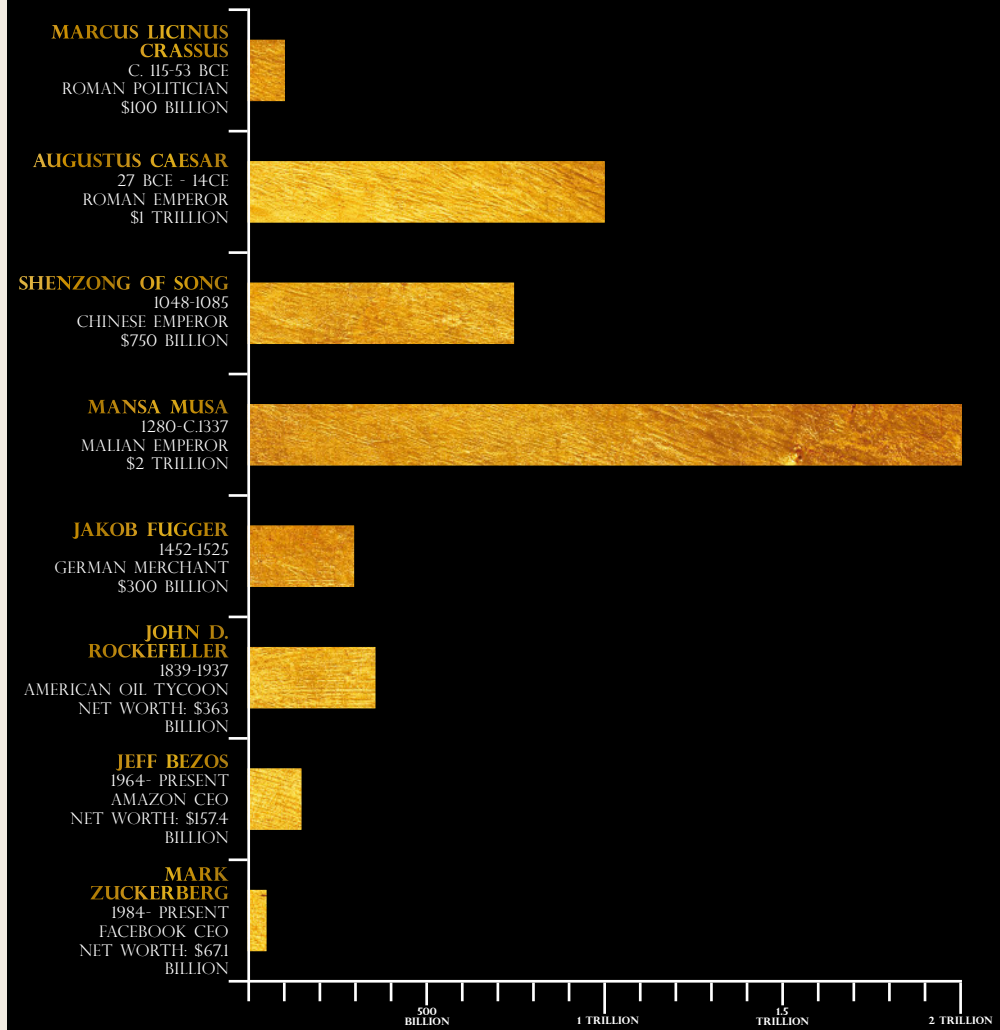
The mansas increased their influence and power in the traditional way by conquering new territories, but they were successful in other ways as well. Mansa Uli, Sundiata Keita's son, increased agricultural productivity in the empire. Others ensured that the city of Timbuktu had a first class university, attracting scholars from all over the Islamic world, who came to share their ideas in the fields of mathematics and astronomy.

By the early 1300s, things were going so well for the empire that Mansa Abubakari II led an expedition to 'explore the limits of the ocean' (the Atlantic). It is alleged that he fitted out thousands of seaworthy vessels and set off on his travels, leaving a man named Musa as his regent. This was not the first time a reigning monarch had left a designated deputy in charge. The mansas were Muslims, and as one of the pillars of Islam is that every good Muslim should go on pilgrimage to Mecca, pious mansas could be gone for a year or more in pursuit of their religious obligations. So, as Abubakari II headed off into the ocean sunset, Musa became the ruler in all but name. Exactly how far the emperor went or where he might have visited are still hot topics of discussion, but we know for certain that he never came back. Musa was crowned Mansa Musa I in 1312.

## The Richest Man in History

# THE RICH LIST

How does Mansa Musa compare to other historical billionaires?



## ROLLING IN IT

However, the most remarkable story of the empire is that of Mali's gold. By the time of Mansa Musa, historians have estimated that about half of the known world's gold (not including that of the Americas) was held by the empire. Mali was dripping in the stuff.

The great Sankoré Mosque in Timbuktu is now a World Heritage site, and it was paid for by Mansa Musa, who hired the famous architect Abu Ishaq al-Sahili to come all the way from Andalusia (a Muslim territory in modern-day Spain) to design and build. For his hard work, the architect was rewarded with about 200 kilograms of gold. That's about \$8,000,000 in today's money, so it's safe to say his fee probably took care of his travel expenses.

Mali's reputation as a source of gold was so widespread that a Spanish map of 1375 depicts Mali with a picture of the mansa holding a gold coin. Putting values on historic wealth is

notoriously tricky. We can work out exchanges and inflation, but that often doesn't represent the whole picture. What we can say is that at this time and in this place, gold was a very rare commodity, far rarer than today, which probably means equivalent amounts were worth much more in the 1300s than they are today.

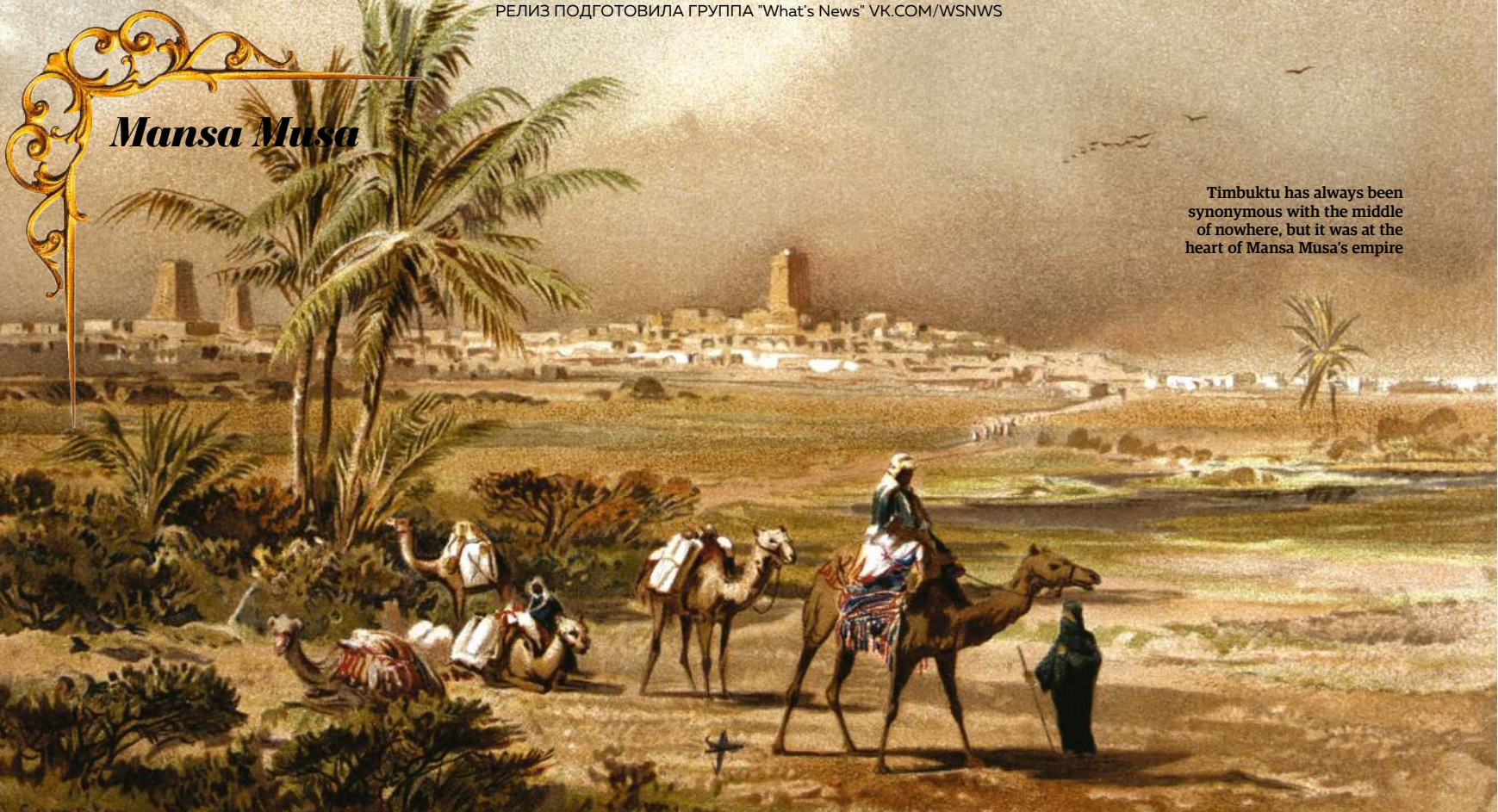
Add to that Mali's lucrative trade in salt - another surprisingly rare commodity in the Middle Ages - and we see a degree of affluence that puts contemporary England's wool production riches in the shadows. Mansa Musa was the richest man on the planet, dwarfing the personal wealth of everyone from the Holy Roman Emperors to the Mongol Khans.

But the outside world knew almost nothing about this at the start of Mansa Musa's reign. Located in sub-Saharan Africa, Mali was remote from the rest of the Islamic world, and while traders knew that certain commodities were coming out of Africa, they don't seem to have



## Mansa Musa

Timbuktu has always been synonymous with the middle of nowhere, but it was at the heart of Mansa Musa's empire



been tied to a specific power. This all changed with Mansa Musa's pilgrimage to Mecca, the defining event of his reign. Before he left, Musa followed his predecessor's example and appointed a deputy to make decisions while he was away and to succeed him if he didn't come back. This time Mansa Musa's son, Magha, was chosen. While the fulfilment of a religious requirement was the primary purpose of the journey, Musa also intended to put Mali on the map of the Muslim world. It could, therefore, be argued that Mansa Musa's pilgrimage was the most expensive and the most successful PR campaign in history.

### ENROUTE TO MECCA

In 1324, Mansa Musa set off from Niani on the nearly 5,500-mile journey to Mecca. This means that by the time of his return in 1325, he had travelled at least 11,000 miles, an impressive feat in the 14th century, even for a rich man.

Musa travelled up through the Sahara desert to the shores of the Mediterranean in Algeria and, from there, headed along the coast to Egypt and then Cairo.

Though this might sound like an arduous journey even for a seasoned adventurer, Musa made sure to take all his home comforts with him. For starters, he had 80 camels for the sole purpose of transporting gold, each beast carrying up to 136 kilograms, meaning that the camels alone had (again, in modern terms) about \$400 million worth of gold bullion. The chronicles record that this entourage further consisted of 60,000 slaves, plus Musa's personal retinue of 12,000 female servants, each of them allegedly carrying 1.8 kilograms of gold,

so another \$15 million. But that wasn't all. The vanguard of the procession was headed by 500 slaves, each carrying a gold-adorned staff, and members of the entourage were dressed in fine brocades and Persian silks.

While these figures alone are stunning, it must also be remembered that all of these 72,000 people (plus Musa) had to be fed every day for about a year. The cost of that alone

would have been eye-watering, especially since Mansa was used to dining most lavishly.

The purpose of taking nearly \$½ billion worth of gold on pilgrimage was not for fees or bribes, but for charity. Another pillar of Islam is Zakat, the giving of 2.5 per cent of one's assets each year to benefit the poor. While it is tempting to claim that the gold destined for Mecca was therefore just 2.5 per cent of Mansa Musa's

### “A SPANISH MAP OF 1375 DEPICTS [MANSA MUSAI] HOLDING A GOLD COIN”

Musa's entourage crossed the Sahara desert in their thousands to make their way to Mecca





## The Richest Man in History

wealth, it was more likely a grand gesture, perhaps to compensate for the years he hadn't got around to fulfilling his religious obligations.

Musa was full of generosity, and he changed some people's lives with the number of gifts to the poor that he distributed. His grand tour was virtually paved with gold. It was also said that every week, wherever he found himself for Friday prayers, he paid for a mosque to be built. As he was away for about a year, that's roughly 52 mosques to add to the bill.

Musa was warmly received by the Mamluk Sultan of Egypt, al-Nasir Muhammad, during his layover in Cairo. However, their meeting

got off to a rocky start. Musa initially refused even to see the sultan, and once in his presence refused to kneel before him. Fortunately he was persuaded to do so, and an unpleasant diplomatic incident was averted.

The sultan had been brought up in the dying days of the Crusades and had faced attacks not only by rival Muslim powers, but even by the Mongols from Persia. Indeed, by the time he met Musa, he had been on and off the throne three times (but this time he stayed in power until his death in 1341), so Musa was a welcome distraction from more immediate and dangerous challenges. Mali was too far away to be a threat,

Gold was of crucial importance to the economy of the Mali Empire



# MUSA'S EMPIRE

### SALT MINES

Rock salt was also a hugely profitable export, used in food preparation and preservation. Its value was at times literally worth its weight in gold. It was mined by slaves in salt flats throughout the Sahara desert, most notably at Taghaza.

### TIMBUKTU

Timbuktu, although its name is now synonymous with a place in the middle of nowhere, was once a thriving hub of wealth and people in the Mali Empire. Its mud brick buildings were home to a plethora of shops, universities, mosques and opulent homes.

### TRADE ROUTES

Trade was the key to Mali's wealth. Merchants would pack up their camels with gold, salt and other items, then embark on long journeys across the Sahara desert to reach cities as far away as Tripoli and Cairo – on the other side of Africa.



### MALI'S CAPITAL CITY

Niani was the capital of the empire during the reign of Mansa Musa and continued to be the capital in the 1600s. It was the centre of the government and commerce making it one of the most important cities on the continent. During the reign of Mansa Musa, Niani had a population of approximately 100,000. London at the time by contrast only had a population in the tens of thousands.

### GOLD MINES

It is thought that much of Mansa Musa's gold came from the rich deposits in the Ashanti region of modern-day Ghana. This is an area so rich with gold that it became known simply as 'the Gold Coast' during British imperial rule, and continues to be one of the world's largest exporters of gold, producing 100,000 kilograms a year.

### RIVER NIGER

Africa's longest river after the Nile and the Congo, the 4,200-kilometre (2,600-mile) Niger flows from Timbuktu to the Atlantic Ocean. As well as irrigating fields used for farming, this made it an excellent route for transporting goods around the Malian Empire.



## Mansa Musa

and its ruler was a pious man, who insisted on showering the sultan - along with every other court emir and royal office holder - with gifts. What was not to like?

### CREDIT CRUNCH

Unfortunately, all of this generosity had unintended consequences, which ended up being a greater threat than all the Mongols in the East. When everyone had gold, naturally prices went up. When there were more gold coins than anything else, the price of essential items such as bread increased exponentially. The economy of the entire Maghreb region was broken, and suffered hyperinflation as an inadvertent result of Mansa's good intentions.

The impact of all this was greatest in Cairo. On his return from Mecca, Musa recognised the economic chaos that he had wreaked. He tried to fix it by ordering his retinue to borrow all the gold they could from money-lenders in Cairo. This was to be done at a high rate of interest. So now Musa created debt for himself on a trip that had already cost nearly \$½ billion. While the gesture helped, it didn't get rid of the problem. Musa's borrowing in an attempt to adjust gold prices makes him the only man in history to directly control the price of gold in the Mediterranean region.

Meanwhile back in Mali, Gao, a city that was prone to rebelling, had risen up against the empire. By the time Musa was on the return

leg of his journey, his son Magha had brought it to heel, but was still a hotbed of defiance. Musa decided to detour his returning entourage through the city - some 1,000 miles east of his capital at Niani - not to gloat over the empire's victory in defeating the rebels, but to wow the locals with displays of the piety and riches of their benevolent and powerful ruler. It worked. The city remained part of the Mali Empire for more than 100 years. Musa also invested in great architectural projects in the city to impress its residents and remind them what it meant to be part of the great empire.

While Christianity didn't feature in the Mali Empire (that would come much later from European missionaries), there existed local

## LIFE IN TIMBUKTU

It has a reputation for being remote and desolate, but what was it really like under Musa's reign?

### 01 GOLDEN CITY

Timbuktu became a permanent settlement in the 10th century CE. Its purpose was a regional trade centre, where caravans met to exchange salt from the Saharan desert for gold, ivory, and slaves from what would become the Mali Empire. It was connected to trade routes via camel caravans and the Niger River.

### 02 SANKORÉ

Because Timbuktu was a crossroads between Sub-Saharan African culture and Middle Eastern trade networks it became a centre of Islamic learning too. This is why Timbuktu was chosen as the site for Sankoré Madrasah, rather than Niani, which was too remote from the Middle East.

### 03 MOSQUE SCHOOL

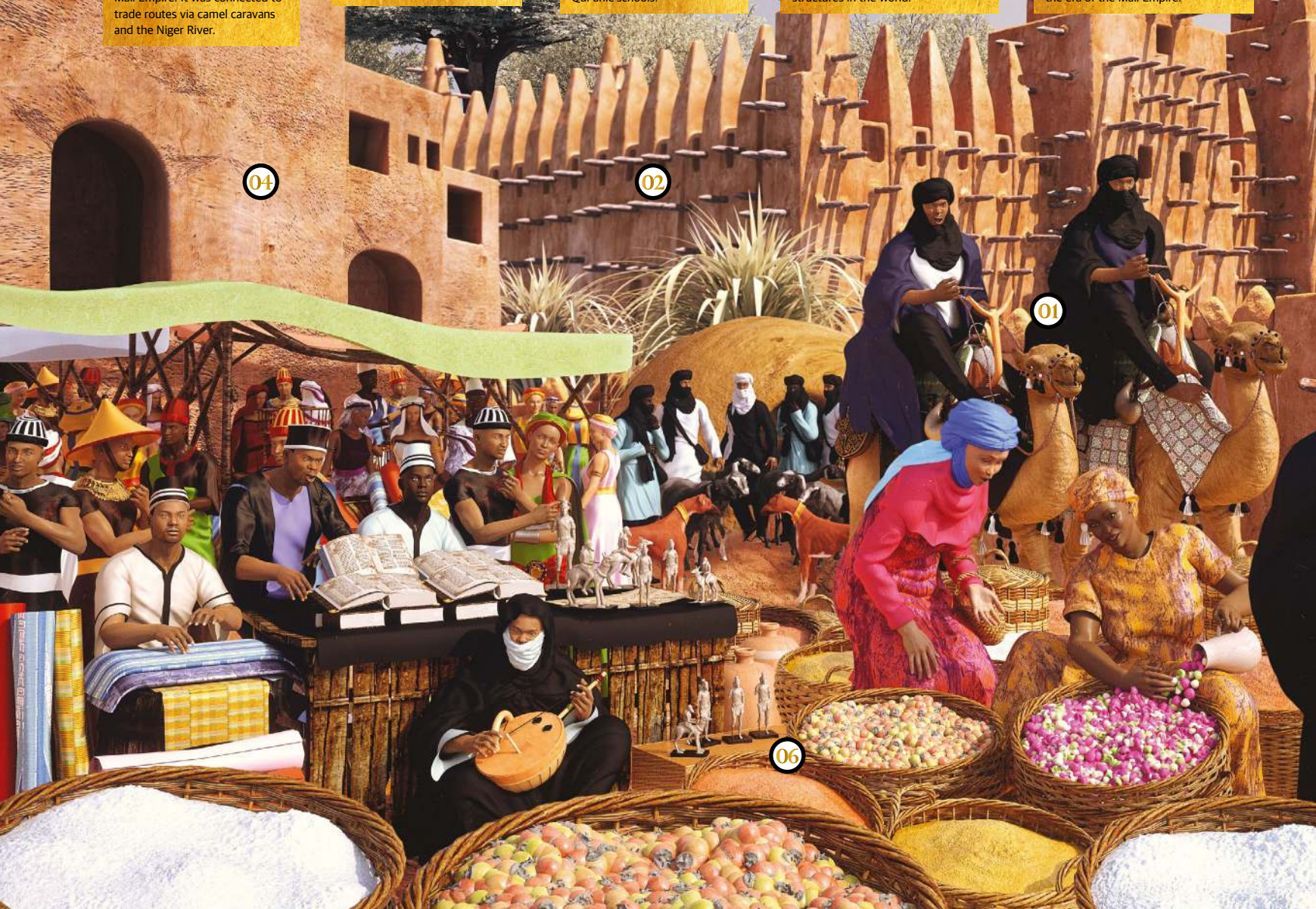
The Sankoré site is a religious complex including multiple mosques and centres of learning. It was an Islamic university where the focal point was faith. It had approximately 25,000 students and over 180 Qur'anic schools.

### 04 BUILT FROM MUD

The Djinguereber Mosque is made from the local building materials of mudbricks and mud. However, unusually for the region it has a timber frame allowing it to be repaired and rebuilt during the rainy season. This makes it one of the oldest extant mud structures in the world.

### 05 THE LIBRARY

When studying in the madrasah, the first course is about Qur'anic and religious studies. However the second one can be on all kinds of topics from mathematics to the copy of texts. Today more than 700,000 texts can be found there, many dating back to the era of the Mali Empire.







An Islamic manuscript found in Timbuktu, the intellectual hub of Musa's empire

## 06 AT THE MARKET

The marketplace was where riches from distant parts of the Mali empire came to be exhibited. Manuscripts were traded outside the walls of the madrasah, but perhaps of greater interest to Timbuktu's residents was the salt from the north, gold from the south, as well as agricultural produce such as cattle and grain.



The Djinguereber Mosque, which was funded by Musa, still looms large over the Timbuktu landscape today

## “MANSA MUSA RECOGNISED THE ECONOMIC CHAOS HE HAD WREAKED”

shamanistic traditions that might have had the power to rival Islam. As a devout Muslim, Musa wanted to ensure that nobody would be distracted by these pagan temptations. It is, therefore, unsurprising that while he was responsible for many impressive architectural achievements, mosques and madrasahs figured heavily among them.

While it's tempting to focus on construction and trade, it shouldn't be forgotten that Niani is a long way from the African coast, which meant there was a lot of land to be conquered before the Malians could access the seas. And cities like Gao and Timbuktu were far away from the capital, which shows expansion in every direction. This meant inevitable rebellions, armies and wars to maintain control, so the Mali Empire wasn't exactly a peaceful paradise.

Many of the wars have been forgotten, but the opulence, and architecture have lingered in the memory to produce a legacy any ruler would be proud of.

After a long reign ruling an empire at the height of its power, spending vast amounts of money to support the sciences, and financing the construction of innumerable religious and other buildings, no one knows how or when Mansa Musa died. There are no records, which is a strange omission.

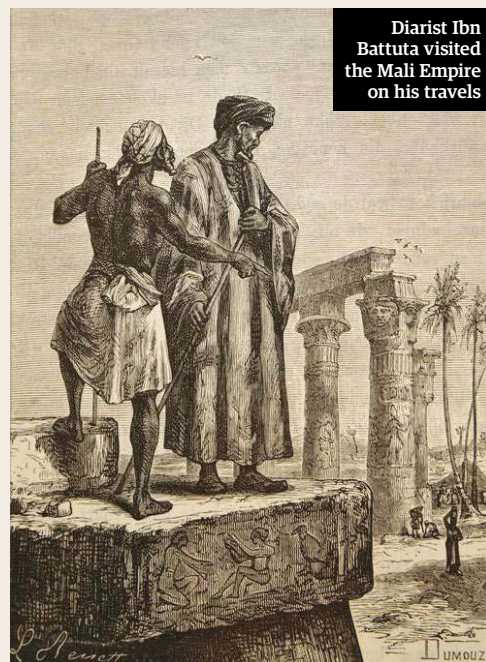
We know more about his son and his reign than we do about the man who put Mali on the map. There are stories that he simply abdicated in favour of his son, and the fact that there are no reports of a palace coup or assassination strongly imply that Mansa Musa died peacefully in his bed. Whatever happened to this fabulously wealthy emperor in the last days of his life, no one disputes that Mansa Musa ruled for 25 years and that he was a great leader.

When the famous Moroccan traveller Ibn Battuta arrived in the empire in the 1350s, about

20 years after the death of Mansa Musa, he was surprised by the affluence, the scholarship and the piety of Mali's people.

But the Mali Empire, like all empires, declined over time. However, contrary to natural assumptions, it wasn't European colonists that took advantage of its vulnerability, but a central West African empire known as the Bamana Empire. They superceded the mansas of Mali.

Though Mali may have faded into obscurity, the legacy of the fantastic Mansa and his vast wealth lives on. As we've said, the value of his riches is hard to quantify, but the best estimates put it at \$2 trillion. So far no one has amassed more - not a mighty king or queen, or a titan of industry - meaning Mansa Musa is not only the richest person in history, but the richest person of all time.



Diaryist Ibn Battuta visited the Mali Empire on his travels



MOUNT RUSHMORE



# MOUNT RUSHMORE SHRINE OF DEMOCRACY

Discover how the United States made a national monument out of a mountainside

Written by Dominic Eames

## FOUNDATIONS OF A NATION

The four US Presidents of the Mount Rushmore National Memorial have kept their silent vigil in the Black Hills of South Dakota for nearly 80 years. The scene today may be calm as the sun rises on the 18-metre-high granite faces of George Washington, Thomas Jefferson, Theodore Roosevelt and Abraham Lincoln, but that is nothing like during its ambitious construction. It took 14 years – beset by funding shortfalls, design alterations and opposition from environmentalists and local Native Americans – to blast and sculpt the monument. The idea for such a colossal carving had come in 1923 from historian Doane Robinson, eager to entice tourism to his home state. He suggested likenesses of Native and Old West figures, like Lewis and Clark, Red Cloud, and Buffalo Bill Cody, saying, "We must have definite things to play up and work upon the imagination of the tourists." He was proven right, just not in the way he envisioned.



## SHRINE OF DEMOCRACY

## A BLANK CANVAS

Robinson hoped the carvings would appear on a collection of naturally-formed pillars in the Black Hills, appropriately named the Needles. But they were too unstable, so a nearby mountain with a large face of solid granite was chosen. Once known as Six Grandfathers, the site was later gained its modern name after Charles E. Rushmore, a New York lawyer sent to check prospectors' property titles in the area in the 1880s. Against the criticism of conservationists, construction got underway on 4 October 1927 with explosives being used to break up the mountainside.

## THE MODEL PRESIDENT

Seen in his studio shaping an early model, sculptor Gutzon Borglum chose four presidents to symbolise the history of the United States. Washington because he led the colonists during the American Revolution, Jefferson was the primary author of the Declaration of Independence, Lincoln kept the country united through a civil war, and Roosevelt saw it become a global power. "I want to create a monument so inspiring that people from all over America will be drawn to come and look and go home better citizens," Borglum declared.





# MOUNT RUSHMORE

## READY TO MOUNT

By the time Borglum finalised the design for Mount Rushmore and was able to create this 1:12 model, he had been forced to make several major changes. Jefferson moved from Washington's right side to behind his left shoulder, meaning Lincoln was pushed further along, while Roosevelt had to be carved much deeper into the rock than anticipated. Once Borglum was happy, countless measurements of the most meticulous details were taken from the model and transferred, multiplying by 12, on to the mountain. Features of the four faces were marked with red paint.

Model  
memorial-

son

in

©

-RISE STUDIO

## THE FIFTH FACE

While Borglum wanted to inspire Americans, the idea of carving giant heads of four white men in the Black Hills was a potent symbol of betrayal to the Lakota Sioux people. The Treaty of Fort Laramie of 1868 had granted them the land, which they held to be sacred, but the discovery of gold there quickly saw the agreement ignored. Native Americans have long attempted to have their side of the story known. From the late 1950s to 1970s, a Lakota man named Ben Black Elk would greet visitors and pose for photos, earning him the unofficial title of the 'fifth face' of Mount Rushmore.



## SHRINE OF DEMOCRACY

## SKILLS WITH DRILLS

The project required a total of 400 workers, many of them used to mining more than scaling mountain faces. Rock would be removed with dynamite initially before men would be lowered from the top in sling-like harnesses called 'bosun chairs' to use jackhammers, drills and chisels. These two are being supervised by Borglum himself. Operators on top of the heads winched them up and down with the help of 'call boys' sat on the edge shouting instructions. As this was the time of the Great Depression, such death-defying work earned around eight dollars a day.

## LINCOLN REBORN

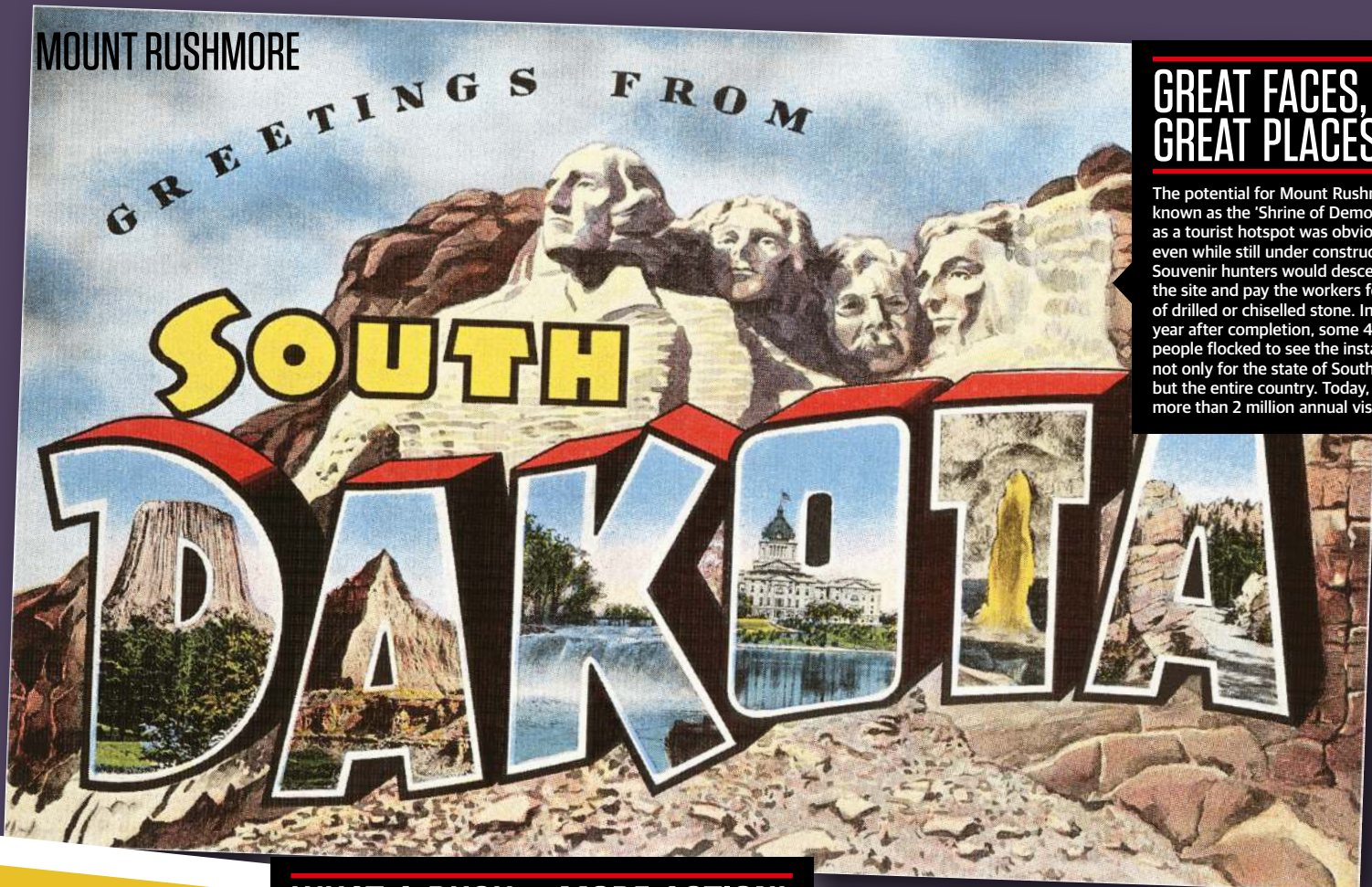
It was said that the most challenging of the four heads was Abraham Lincoln's, on account of his distinctive beard. After the powdermen had blasted away most of the rock - to within a few inches of where the faces began - workers drilled hundreds of little holes close together. This 'honeycombing' weakened the granite so it could be removed easily, even by hand, before the surface was smoothed with bumper tools.

## COMING FACE TO FACE

There was so much drilling that blacksmiths were onsite to sharpen up to 400 drills a day, but dynamite actually did the vast majority of the work. An estimated 90 percent of the 'carving' was done with explosives, removing around 450,000 tons of rock. Remarkably, not a single worker died on Mount Rushmore - while another construction project of the 1930s, Hoover Dam, suffered more than 100 deaths.



## MOUNT RUSHMORE

GREAT FACES,  
GREAT PLACES

The potential for Mount Rushmore, known as the 'Shrine of Democracy', as a tourist hotspot was obvious even while still under construction. Souvenir hunters would descend on the site and pay the workers for pieces of drilled or chiselled stone. In its first year after completion, some 400,000 people flocked to see the instant icon not only for the state of South Dakota, but the entire country. Today, it has more than 2 million annual visitors.

## WHAT A RUSH – MORE ACTION!

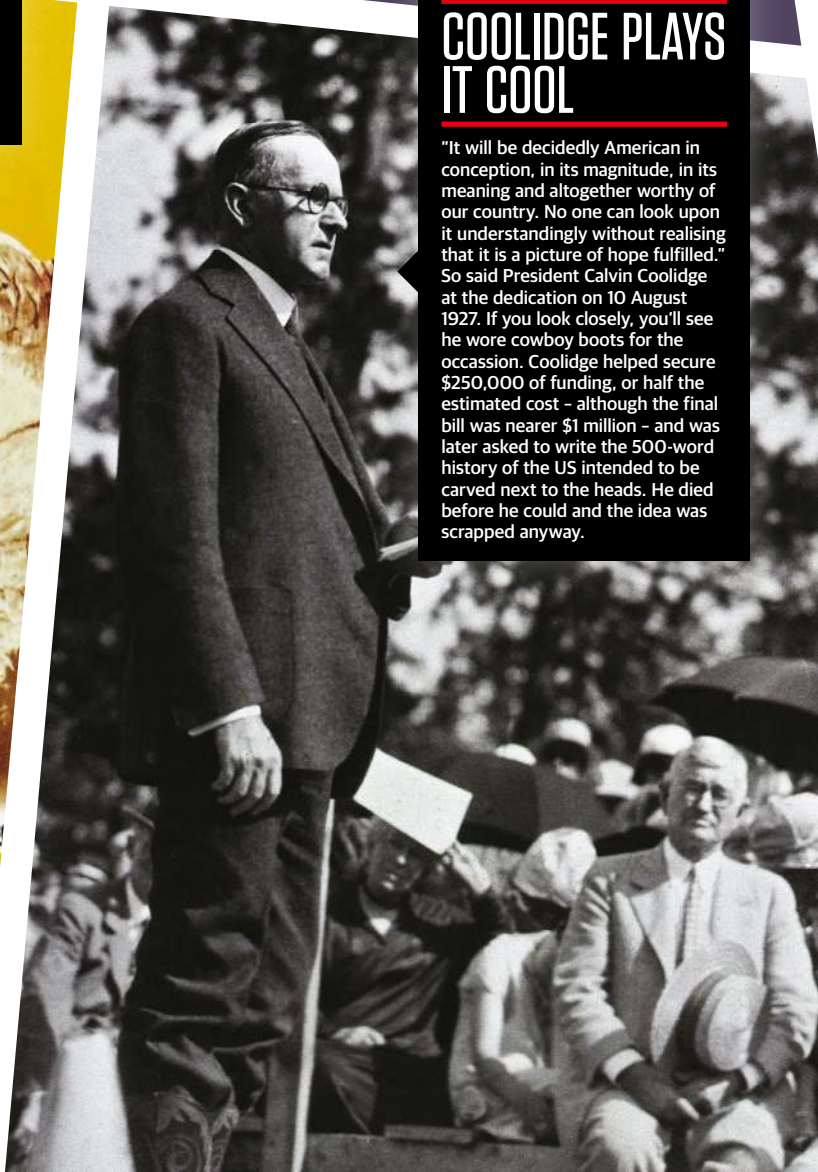
The completed Mount Rushmore was the setting for the finale of Alfred Hitchcock's 1959 thriller *North By Northwest*, starring Cary Grant and Eva Marie Saint. Permission had been given for filming actually on the monument as long as there was no violence. When word slipped that a couple of the villain's henchmen would plummet to their deaths, though, Hitchcock ended up shooting on a set.



LY CARY GRANT AND ALFRED HITCHCOCK EVER GAVE YOU SO MUCH SUSPENSE IN SO MANY DIRECTIONS

COOLIDGE PLAYS  
IT COOL

"It will be decidedly American in conception, in its magnitude, in its meaning and altogether worthy of our country. No one can look upon it understandingly without realising that it is a picture of hope fulfilled." So said President Calvin Coolidge at the dedication on 10 August 1927. If you look closely, you'll see he wore cowboy boots for the occasion. Coolidge helped secure \$250,000 of funding, or half the estimated cost – although the final bill was nearer \$1 million – and was later asked to write the 500-word history of the US intended to be carved next to the heads. He died before he could and the idea was scrapped anyway.





## SHRINE OF DEMOCRACY



## WONDER OF THE WORLD

Each head had received a dedication ceremony complete with a reveal from under a large American flag, yet the work continued as Borglum planned for the presidents to be depicted from the waist up. But on 6 March 1941, he died, aged 73. His son Lincoln took over, but with World War II looming, funds dried up and construction ended. Although unfinished, Mount Rushmore stands as a wondrous achievement – and, as the granite erodes at around an inch every 10,000 years, the presidents will continue their watch for a long time.

## A MEMORIAL TO MATCH

Since the 1930s, a goliath carving project has been ongoing on a cliff around 15 miles from Mount Rushmore. It will depict the warrior Crazy Horse pointing into the distance on horseback, and with an intended height of 172 metres, will utterly dwarf the presidents – if it's ever completed. The memorial was commissioned by the Lakota chief Henry Standing Bear, who announced, "My fellow chiefs and I would like the white man to know that the red man has great heroes too."





РЕЛИЗ ПОДГОТОВИЛА ГРУППА "What's News" VK.COM/WSNWS

**HELP US IMPROVE**

# ALL ABOUT HISTORY

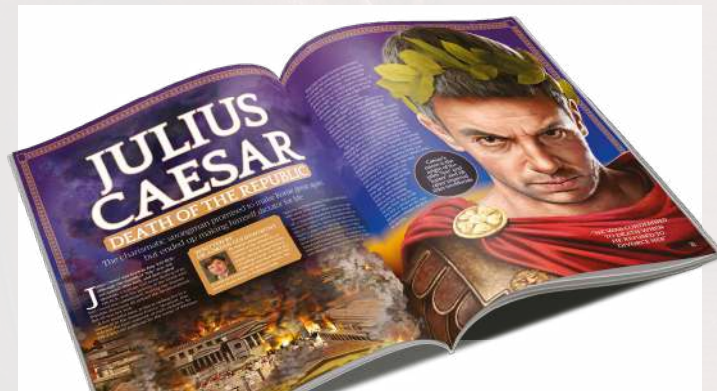
Tell us what you think about the magazine and you could win a shelf load of books

We make **All About History** for you, dear reader. So to make sure we are providing you with the best possible magazine each month, we want to hear from you!

Tell us what you love about **All About History**, which bits you hate, and how we could make it better by taking our online reader survey now.

While it only takes five minutes to complete, your participation could help shape the future direction of the magazine. Also, all participants will be entered into a draw to win £100 worth of amazing history books.

**TAKE OUR READER SURVEY NOW AT:  
[HTTPS://BIT.LY/2WVH5BL](https://bit.ly/2WVH5BL)**



**What's your favourite part of the magazine?**



**Is there a section you always skip?**







Which era do you want to read more about?



What would you change?



# What if...

## Hitler had taken Moscow in 1941?

The seizure of the Soviet capital might have prevented the attack on Pearl Harbour and sealed the fate of Western Europe

Written by Dom Reeseigh-Lincoln

### INTERVIEW WITH... PROFESSOR MARC MILNER



The director of the Gregg Centre for the Study of War and Society at the University of New Brunswick, Professor Marc Milner has written several books on World War II. This includes *Battle Of The Atlantic*, which won the CP Stacey Prize for the best book on military history in Canada in 2004. His recent work has been on the Normandy campaign, including *Stopping The Panzers: The Untold Story Of D-Day*, which won the US Commission on Military History's James Collins Book Prize for 2014-15.

### What if Hitler had taken Moscow as part of Operation Barbarossa?

Hitler, of course, had hoped to knock out the whole of the USSR in a campaign of six to ten weeks. Now, in retrospect, that was ridiculously overambitious.

The intelligence was wrong about the number of Soviet reserves and so on. However, if by some miracle they had been able to knock out the USSR, then you're left in a situation very similar to that which occurred in 1917-18 in World War I, where Germany managed to win on the Eastern Front.

The Bolshevik Revolution started, the Bolsheviks made peace with Imperial Germany and the Germans were able to concentrate on the Western Front. So you have that sort of situation and it really throws the future course of the war into doubt.

### So what would Germany have needed to do in order to successfully invade the Soviet Union at the time?

There's a big debate about whether a victory was ever actually within Hitler's grasp. The debate is centred around the role of Moscow. There are those such as RHS Stolfi who have said that Operation Barbarossa was the turning point of the war, and that Germany would have been able to destroy the Soviet Union had they gone straight for Moscow in August 1941 (rather than diverting and focusing on

taking the Ukraine and besieging Leningrad, and only later going against Moscow - by which point the weather was turning against them). Effectively, the question becomes 'What is enough to make the Soviet regime fall apart?'

That was what Germany achieved in 1917-18 - there were successive changes of regime, and the Bolsheviks were willing to make peace. However, what we know of the resilience of the Soviet regime in 1941-42 suggests that even the fall of Moscow might not have been enough for that to occur. In 1917 the Germans had not even come close to Moscow, they had only taken Kiev and Riga - and that alone was enough to knock out Tsarist Russia. The later Soviet regime seemed a lot more ruthless and inspired a lot more devotion among the population. And, of course, German atrocities had been such that even those who might have welcomed a change of overlord realised the Nazis were even worse than Stalin had been.

My own perspective is that I don't think Germany could easily have taken Moscow at any time in 1941. Had they taken it, they might have lost it immediately during a Soviet winter counteroffensive, in very much the same way they

lost Stalingrad in 1942-43. And, just as happened to Napoleon, just taking Moscow doesn't necessarily bring Russia to collapse. That was Napoleon's nemesis. So, frankly, I find it very difficult to envisage how the Soviet regime could have been beaten in 1941. Conceivably, there was a possibility of an attritional defeat of the USSR in 1942, but the tide of resources was turning against Germany then. So I find it difficult to see how Germany would have been able practically to achieve this knockout victory, given Soviet reserves, given Soviet commitment and given the size of the country.

### How would the Allies have reacted if Russia had fallen to the Axis?

A lot depends on at what stage this occurred and what else was happening around the world. Remember, what happened simultaneously with the decisive battle for Moscow was that the Japanese attacked Pearl Harbour and the Americans were brought fully into the war.

They had been helping the British significantly, but they weren't fully in the war until this surprise attack. And then Germany, of course, declared war on the United States. Had that happened, even if

Hitler's troops marched for weeks, covering a huge distance and ultimately stretching supply lines too thinly





*What if...*

HITLER HAD TAKEN MOSCOW IN 1941?

"In 1917 the Germans  
had not even come  
close to Moscow"





## What if...

the Soviet Union had fallen at the same time, then you would have this ongoing war with Britain and America.

Imagine a nightmare scenario where war did not start between Germany and the United States after all. One way to avoid that would be for Japan not to attack Pearl Harbor, but instead to attack Siberia and gang up on the Soviet Union while it was on the ropes. And that might have helped with the collapse of the Soviet Union, because it was forces released from Siberia (when the Soviets realised Japan was not going to attack the USSR) that helped support the defence of Moscow. For the British, all hope of victory would have effectively been lost, because the Americans would not be in the war at all.

Therefore, Germany could have perhaps presented Britain with a *fait accompli*, where its greatest continental ally had been defeated. Remember that was one reason why Napoleon attacked Russia, to remove Britain's last ally so the British had no further option to continue the war. And then you might have got some sort of stalemate situation.

So you can see a scenario where Hitler dominated the continent, but still would have had a considerable challenge in defeating Britain. However, with such German dominance of the continent, the war would have probably ground to a halt in effect. Britain would certainly have suffered great continuing losses, just as it did in reality with the loss of Tobruk in 1942, the U-Boat war, the Luftwaffe bombings, and so on. So in that scenario you can see Britain being cowed into some sort of bitter, albeit perhaps temporary, peace.

### Would the success of Operation Barbarossa have lasted with the United States fully committed to the war?

Let's say the Soviet Union collapsed after Pearl Harbour, despite the Japanese having turned against America and brought the United States fully into the war. That's much more akin to the situation in 1918 where the Germans won the war in the East, and brought forces back to the West to hold and possibly win. They failed in 1918 as US reinforcements poured in, but what might have happened in 1942-43 is a very interesting question, militarily. Assuming you don't get the compromise peace, would the Allies be able to win regardless?

The Soviets were producing tanks on par with the Germans, but that production was partially halted for months as factories were packed up and moved away from German hands



## How would it be different?

### ● The Luftwaffe crush the Soviet air fleet

By the end of the first week of the invasion, the Luftwaffe claimed it shot down over 3,000 Soviet aircraft, as the German war machine advances. Reports suggest only 78 German planes were lost. **29 June 1941**

### ● Smolensk falls to the Nazis

The large city of Smolensk, one of the key strategic locations on the road to Moscow, falls as Hitler's pincer movement crushes any Soviet resistance. **16 July 1941**

### Real timeline

#### ● Signing of the Molotov-Ribbentrop Pact

Known as the Nazi-Soviet Pact or the German-Soviet Non-aggression Pact, the agreement saw them agree to a fragile form of peace, although it didn't last for very long. **23 August 1939**

#### ● Hitler launches Operation Barbarossa

Despite the Molotov-Ribbentrop Pact, Hitler becomes fixated on the idea of destroying the Soviet Union. He believes it weak enough to break with the blitzkrieg tactics that also took France, Norway and many more. Spies loyal to the Soviet regime (including Richard Sorge, based in Japan) send word to Moscow that Hitler is planning to betray them, but Stalin refuses to believe them. Even when Axis forces cross the threshold into Soviet territory, Stalin initially orders artillery not to fire as he believes the invasion may have been greenlit without Hitler's permission. **22 June 1941**

### Alternate timeline

#### ● The Luftwaffe pummels the Soviet ground forces

Along with effectively disabling the Soviet air force, the Luftwaffe provide a two-pronged attack in the centre and the south, with a sustained campaign of aerial bombardment. **June-July 1941**

#### ● Large scale atrocities are avoided

Hitler is convinced by his generals that a campaign of cleansing against Bolshevik Jews will turn the Russian people against them. However, a plan to purge the Bolshevik Jews remains until after Moscow falls. **July 1941**



## HITLER HAD TAKEN MOSCOW IN 1941?



There's a big debate in the literature about this. There are those such as Norman Davies - perhaps the chief exponent of this view - who say the whole war was dominated by the war in the East, that the war on the Western Front was a sideshow compared to its enormous scale and by implication the Soviets won the war rather than the Allies.

At the opposite extreme there's Phillips O'Brien, who says that the West could have defeated the Nazi war machine even if the Soviet Union had collapsed. So there's a significant scholarly debate on this. My own opinion falls somewhere in the middle. The release of a proportion of those forces on the Eastern Front would have allowed Germany to garrison continental Europe so heavily as to make it very difficult for the Allies to launch successful amphibious invasions.

The fact that there was no continuing land front as in France in 1918 would have been a big obstacle for the Allies. So I think one could perhaps have reached a stalemate in land terms, with the combatants divided by the Channel and the

Mediterranean. What wouldn't have been a stalemate would have been the air war. The main plank to Phillips O'Brien's argument is that WWII was primarily an air war, and by 1942-43 the Allies were starting to gain air superiority over the Axis and bomb Germany.

So what you've got is a nightmarish situation for all concerned, where it would have taken years and years for the Allies to eventually wage a ground war against Nazi Germany, but they would have continued to fight the air war; so you would have German cities being incinerated despite the fact that, in theory, the Nazis controlled the continent. And, as we know, in 1945 the US got the atomic bomb.

So you could argue that, in 1945, the Germans would lose anyway because they would get the same treatment the Japanese received at Hiroshima and Nagasaki. And given that Germany would have been in a far better territorial and resource position than Japan, it would have taken a significantly larger number of bombs to defeat Hitler's regime.



Hitler was determined to use his tactics of shock and awe on the Soviets, and such a course of action worked for the first few weeks

#### ● The Nazi encirclement is complete

Hitler orders his commanders to obliterate Soviet forces in Smolensk and Ukraine, rather than push on with all haste to Moscow, which is no longer the main target. **19 July 1941**

#### ● Siege of Leningrad begins

While Germany would never fully take the city of Leningrad, it would effectively lock it down into a blockade that lasts until 1943. **8 September 1941**

#### ● Soviet armies are crippled

Much of the Soviet forces have now been obliterated by the Axis. Soviet forces return to reinforce Moscow. **18 September 1941**

#### ● Hitler orders Operation Typhoon

With weather conditions ideal, and the Russian winter holding off, Hitler orders the Axis forces to attack Moscow. **2 October 1941**

#### ● The siege grinds to a halt

Rain, snow and a supply line that's stretched too thin sees the Axis attack on Moscow stall. Hitler reluctantly orders his forces to temporarily withdraw from besieging the city. **5 December 1941**

#### ● The Soviet counteroffensive begins

With the Germans struggling to deal with the weather conditions the Soviets began a brutal counteroffensive to drive the Axis back. **5 December 1941**

#### ● Russian resources come into play

As the Axis pushes further into Central Russia, Hitler orders that all disenfranchised Soviet soldiers be offered the chance to enlist. Soviet armour is also repurposed to bolster German forces. **August 1941**

#### ● Soviets destroy the oil fields

Hitler is keen to gain control of the oil fields in the Caucasus. While the Nazis occupy those on the outlying reaches, Stalin orders the destruction of those that remain in Soviet power. **September 1941**

#### ● Moscow surrenders to the Axis

Despite a quick counteroffensive, the city ultimately surrenders to the Nazi war machine. Resistance is still heavy, and German losses have been considerable, but the USSR is beginning to crumble. **October 1941**

#### ● Smolensk and Kiev fall

Kiev and Smolensk fall faster due to an accelerated campaign of air bombardment and advancing armour. The cities are levelled and all counterattacks defended, mainly due to Hitler's desire to move on Moscow. **August 1941**

#### ● Leningrad siege begins

Hitler's generals advised him that Leningrad should be forced into a blockade, but that the bulk of the German forces and new Soviet defectors should push directly onto Moscow before the winter. **Late August 1941**

#### ● Siege on Moscow begins far earlier

Stalin's purges and campaign of fear has created a disconnect with some of his people. Hitler uses this fact to take many airfields and factories on his way to Moscow. This bolsters his supply lines. **Late September 1941**

#### ● Moscow begins to fall

With bolstered supply lines, a larger army and a diminished response from the Soviet partisans, Stalin tries to oversee the defence of the city. By now the Germans are enforcing an encirclement of Moscow. **September-October 1941**

#### ● Continental Europe under Nazi control

With the collapse of the Soviet Union, every other state is forced to surrender. Britain now remains isolated as the Nazi menace grows ever stronger. **November 1941-January 1942**



# Bluffer's Guide

## The Darien Scheme

PANAMA, 1698-1700



### Timeline

JUNE 1695



The Scottish Parliament founds the Company of Scotland to establish trade with Africa and the Indies, but English and Dutch investors withdraw their support following pressure from the East India Company.

JULY 1698



Scottish citizens invest in the scheme and the first expedition sets sail from Port Leith, taking 1,200 settlers to the Caribbean.

NOVEMBER 1698



Settlers land at Darien after a three-month voyage, and get to work building the foundations of their new colony, which they name Caledonia.

MARCH 1699



Disease wreaks havoc through the settlement and in the first five months, more than 200 colonists die - King William forbids English colonies from helping them.



# Bluffer's Guide

## THE DARIEN SCHEME

### Did you know?

As part of the 1707 Acts of Union that formed Great Britain, England had to pay off Scotland's £398,000 Darien Scheme debts

### ? What was it?

This ambitious 17th century venture aimed to establish a Scottish colony in the Isthmus of Darien, modern-day Panama. It was argued that its position would make Scotland the broker between Atlantic and Pacific trade, and supremely wealthy as an alternative route to the dangerous voyage around South America's Cape Horn.

The so-called 'Darien Scheme' was proposed by William Paterson, a Scot who had made a name for himself as one of the founders of the Bank of England in 1694. His plan quickly gained investment from English and Dutch financiers, but they were both forced to pull out when the English Parliament withdrew its support for the venture, under pressure from the rival East India Company.

So fierce was resentment at this treatment by the English that thousands of Scots, rich and poor, put their own money into the enterprise. Crowds even gathered at Port Leith on 12 July 1698 to cheer on the five ships of 1,200 eager settlers as they set sail for the new world.

### ? What were the consequences?

The Darien Scheme was a complete disaster. The colonists quickly discovered the land they dubbed Caledonia was not suited to agriculture. Fever and dysentery spread rapidly, decimating the population. Royal decree also forbid nearby English colonies from assisting the struggling settlers, let alone to trade with them. The Spanish also considered them intruders in the region, and attacked the settlement. When a second expedition arrived in November 1699, Paterson and the few remaining survivors had already returned to Scotland. The colony was abandoned entirely in 1700.

The Darien Scheme had severe repercussions for Scotland's finances. As well as ordinary Scottish citizens, public bodies and town corporations had invested in the failed venture, losing around £400,000 in total - equal to around half of the nation's wealth. The calamity convinced many that Scotland could not survive on its own and the country conceded its independence seven years later.

### ? Who was involved?

#### William Paterson

1658-1719

Scottish financier who made his money through international trade, travelling extensively throughout the Americas.

#### King William III & II

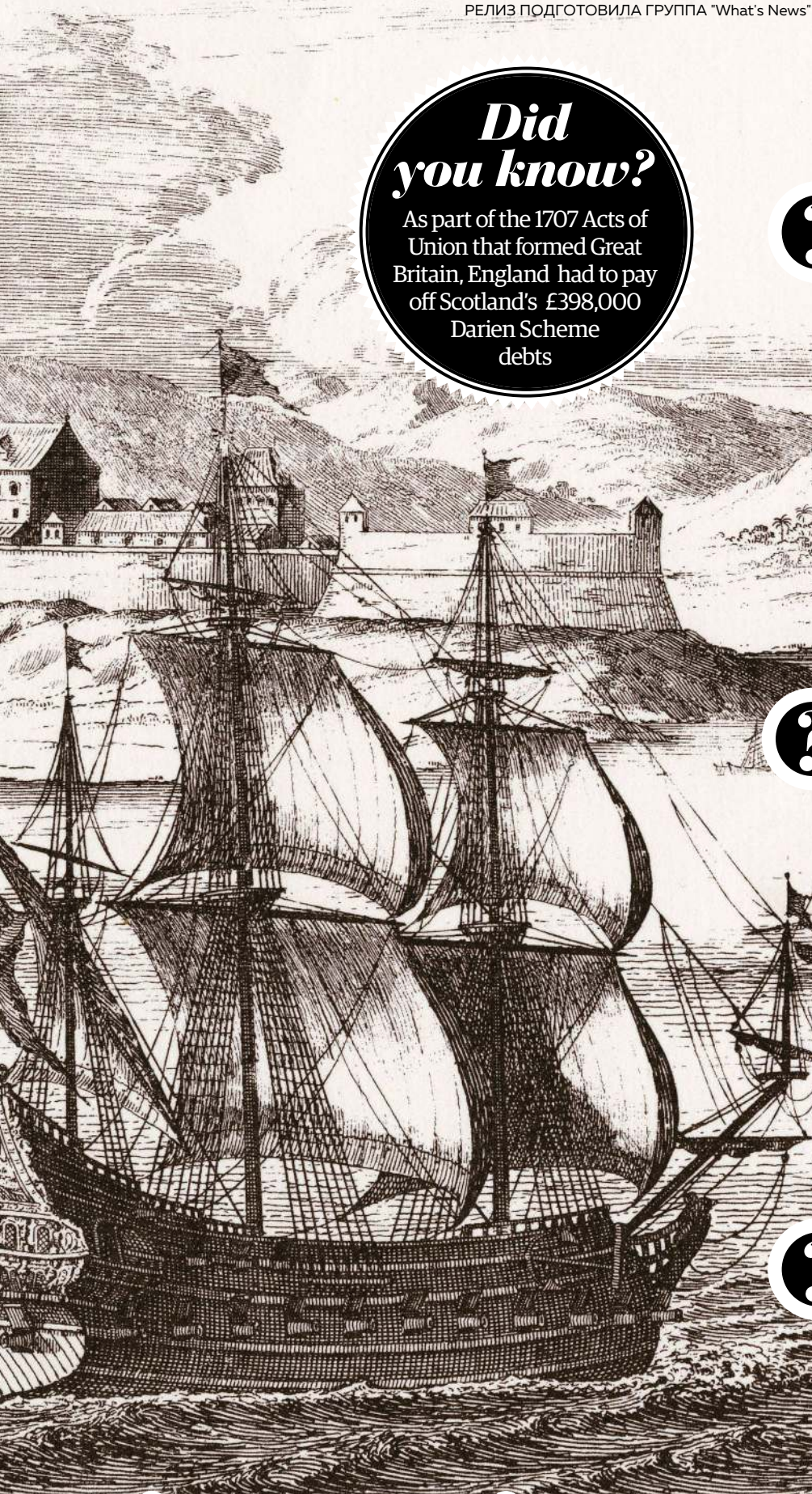
1650-1702

This monarch forbid English colonies from helping the Scottish settlers since England viewed them as a threat to trade.

#### Lionel Wafer

1640-1705

Welsh explorer who lived amongst the Kuna. He wrote a book on his experiences and advised Paterson in his scheme.



JUNE 1699

MARCH 1700



The first expedition abandons the settlement to return to Scotland, but only one ship makes it back. A second expedition arrives in Darien just two months later, unaware of what has happened to the first.



The second expedition tries and fails to rebuild the settlement. A pre-emptive attack on the Spanish fails and the colonists are besieged, forcing them to return to Scotland.





# Margaret Thatcher

Admired and reviled in equal measure, was Britain's first female Prime Minister a heartless Iron Lady or revolutionary reformer?

Written by David J Williamson

**A**lmost 30 years since she was last in power, Margaret Thatcher remains a divisive figure in Britain. Some see the Prime Minister as having saved the country from economic decline, others believe she destroyed the livelihoods of millions of workers. Neither side can deny that Thatcher became a icon in her own lifetime through sheer force of cast-iron will.

Born Margaret Roberts in 1925, she grew up living above her parents' grocery shop in Grantham, Lincolnshire. Her childhood was comfortable, but a far cry from the aristocratic origins of many Conservative leaders and Prime Ministers. But the influence of her father's role in local politics and her own self-belief were to change all that.

Displaying an early determination for hard work and self-betterment, she won a scholarship to the local grammar school. From there, she went on study chemistry at Oxford, where she also became one of the first women presidents of the university's Conservative association.

After graduating 1947, she worked as a research chemist. In 1951, she married wealthy industrialist Denis Thatcher, who supported her political ambitions. But her rise to power was far from meteoric. Her first two attempts to become a Member of Parliament (MP) failed. From 1952,

Thatcher even put politics aside for a time, first to train as a barrister, then to have children.

When she was finally elected in 1959, she was one of just 25 women MPs out of 630 in the House of Commons. Post-war British politics remained a boy's club and she routinely faced prejudice, not just from the Conservative Party rank and file, but the leadership. Though she was a proven orator, only a number of low-key junior ministerial roles followed. Undeterred, she bided her time.

Her big break came in 1970 when she was appointed as Prime Minister Edward Heath's Secretary of State for Education. Contrary to her reputation as a Conservative ideologue, she rapidly expanded the roll out of comprehensive schools established by the previous Labour government, which were aimed at ensuring rigorous education for working-class children. However, Thatcher also abolished free milk for school children over seven years old, leading political opponents to label her 'Mrs Thatcher, milk snatcher' - a soubriquet that would stay with her for the rest of her career.

With the British political turmoil of the 1970s, labour unrest and a lack of confidence in the leadership of Edward Heath, Thatcher was thrust into a leadership challenge. She seized the opportunity and, against the expectations of many,

## Defining moment

### Breaking the Mould

Becoming Tory Leader was an unprecedented break with tradition and the influence of the old boy's club. In a time of turmoil it was a momentous, and in many ways uncomfortable, change for politics and politicians. For Thatcher, it was the platform from which she could begin to build her own vision of Britain's future.

1975



## *Hero or Villain?*

MARGARET THATCHER

### *Defining moment*

#### **A Patriotic War**

In true Churchillian style, Thatcher spearheaded a wave of collective passion and pride over the Falklands War. Her ratings in the polls shot up as Britain was once again seen as a global force under her leadership. Her own grit and determination was embodied as the 'bulldog' spirit of a nation which was to resonate for years to come.

**April to June 1982**

"When she abolished free milk for school children over seven years old, the phrase 'Mrs Thatcher, milk snatcher' was born"



# Hero or Villain?

## MARGARET THATCHER

she won. In 1979, the unheard of happened and she became not just Britain's first female Prime Minister, but the first woman to govern a western democracy.

Coming to power with a landslide victory, she had a mandate to make sweeping changes. Representing the newly emboldened right wing of the Conservative Party, Prime Minister Thatcher advocated for people to be less dependent on the state, which took the form of privatising national utilities and cutting social services.

Having inherited a poor, failing economy, her solutions were harsh and difficult to bear for the poor and disadvantaged in society. However, her grit and determination prevailed and her famous "the lady's not for turning" speech left her critics in no doubt as to her vision and the strength of her resolution.

Not all were to suffer under her time in office. Her focus was to inject momentum and strength into the economy with initiatives such as the ability of tenants to buy their council house (almost 2 million have been sold since the scheme was introduced in 1980). She also allowed the ordinary man in the street

**"It was a move that galvanised a nation, united in a patriotic fervour and single belief that Britain was still a major player"**

to purchase shares in the main utility companies as part of a massive privatisation programme; all pursued with a firm belief in giving ordinary men and women a greater choice over their money and a pride in their future.

It was national pride that was to be at the centre of a pivotal moment in Thatcher's leadership. Following the invasion of the Falkland Islands by Argentina in 1982, Thatcher took the momentous decision to create and deploy a task force of thousands to retake the British Overseas Territory in the South Atlantic.

It was a move that galvanised a nation, united in a patriotic fervour and single belief that Britain was still a major player to be reckoned with on the world stage. After Argentina surrendered a hero's welcome awaited the returning task force.

Thatcher herself referred to the 'Falklands spirit' for many years afterwards.

As a player on the international stage she became something of a force to be reckoned with. Her role in aiding the peace process of Northern Ireland by signing the Anglo-Irish Agreement is in direct conflict to her personal attacks on the Republican hunger strikers.

Her relations with US President Ronald Reagan gave her the platform from which she could project the image of Britain as a global influence to be taken seriously and listened to, even if this meant a lack of popularity at home.

The American cruise missiles based at Greenham Common, the use of British RAF bases for US aircraft to bomb Libya; all this played into the hands of those accusing Thatcher of being a puppet of the United States. But Thatcher did not view herself so blinkered in this way, and as part of her global charm offensive was even willing to engage with those at the complete opposite end of the political spectrum; she was the first British Prime Minister to visit the People's Republic of China, and made an effort to form closer ties with the reformist policies of Mikhail Gorbachev as he guided the Soviet Union out of the Cold War.

But the glittering glamour of foreign policy was to be overshadowed by a grim harsh reality for



Thatcher and President Ronald Reagan were known for their special relationship



The Poll Tax prompted many to protest and even riot in the streets around the country



The IRA bomb damage at the Grand Brighton Hotel, 1984. The Prime Minister still gave her conference speech the next day





# Hero or Villain?

## MARGARET THATCHER



Clashes between police and striking miners often turned violent with casualties on both sides

many under Thatcher's domestic agenda. The introduction of the Community Charge, or 'Poll Tax' as it became known, became synonymous with Thatcherism at its most brutal, with taxation of property moving to taxation of individuals. It divided the nation into the 'haves' and 'have-nots', which for many was the same as class. Protests were country-wide and many of the bigger cities saw violence and riots.

Having seen a previous Tory government brought to its knees by union strike action, Margaret Thatcher was determined it would not happen again. When she clashed with the unions in 1984 over the closure of unprofitable coal pits, it was a confrontation of epic proportions and one she intended to win. Having stockpiled coal reserves, Thatcher stood firm. Without the unions having conducted a ballot, the strike was deemed unlawful. Whole communities suffered as the industrial action dragged on.

Images of violent clashes between strikers and police were beamed around the world. Thatcher was living up to her 'iron lady' image, but she

was seen as cold and heartless, uncaring for the damage she was causing to hardworking families. But still she held firm and after a year the unions were forced to back down, opening up a new era in industrial relations and leaving the unions a shadow of their former selves.

The era of Thatcher was an era of change. In response to political and social turmoil of the 1970s, the world of the 1980s and beyond became a very different place, but at what cost? For her it was no pain no gain; for others it was a brutal dissection of society.

Thatcher enabled huge numbers of people to own their own homes and to benefit from shared ownership, but she stripped entire communities of their livelihood and left many feeling targeted and victimised by unfair taxation. It cannot be denied that she

broke the mould when she came to power, only to be criticised by some for not governing more like a woman, and by others for not being more like a man. Her conviction cannot be questioned, nor her ability to ignite passions on all sides.

### Defining moment

#### Hammer of the Unions

Along with the Poll Tax, the miners' strike is one of the major focus points for Thatcher's critics as to how cold and brutal her policies could be. Her unswerving resolve and grim determination to win made her look distant and cold, alienating whole areas of the country, but it was to break the stranglehold of the unions to this day.

1984 to 1985

## Hero or villain?

### HEROISM

To the homeowners and better off, she was a hero and instilled patriotic passion through her determination in fighting for Britain and establishing it on the world stage

### VILLAINY

Her policies and demeanour were seen as brutal and cold, and many voters believed her to be out of touch with the ordinary people and working class

### LEGACY

She became a major figure in world politics and her policies still resonate in Britain today. Her impact on politics and society cannot be ignored

Was Margaret Thatcher a hero or a villain? Get in touch and let us know what you think

[Facebook](#)  
/AllAboutHistory

[Twitter](#)  
@AboutHistoryMag



# Time Traveller's Handbook

## BELLE ÉPOQUE

France, 1870-1914

**S**ometimes you don't know how good something is until it's gone. The Belle Époque ('Beautiful Era') will be one of the most optimistic, colourful and progressive periods for decades. Nowhere is this felt more keenly than in Paris, which is home to a flourishing art scenes, feats of engineering prowess, medical discoveries, gay abandon and laughter; though all that glitters is not gold, and many live their lives beneath the surface of progress toiling away to make ends meet, far from the dancing and music above.

Here you will see the Eiffel Tower rise above the city and meet (and drink!) with some of the most famous artists and writers the world will ever know. Make the most of it all though as the dark days of war will bring the curtains down on the show.

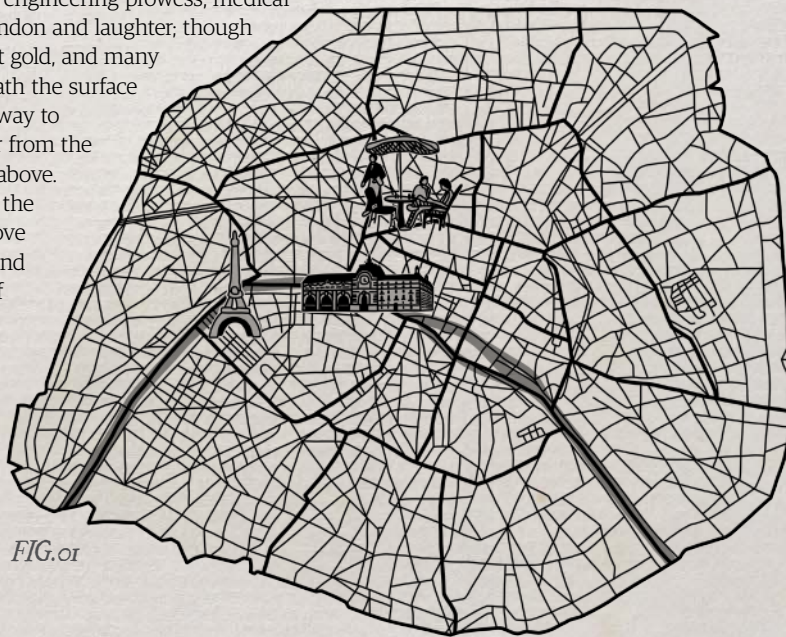
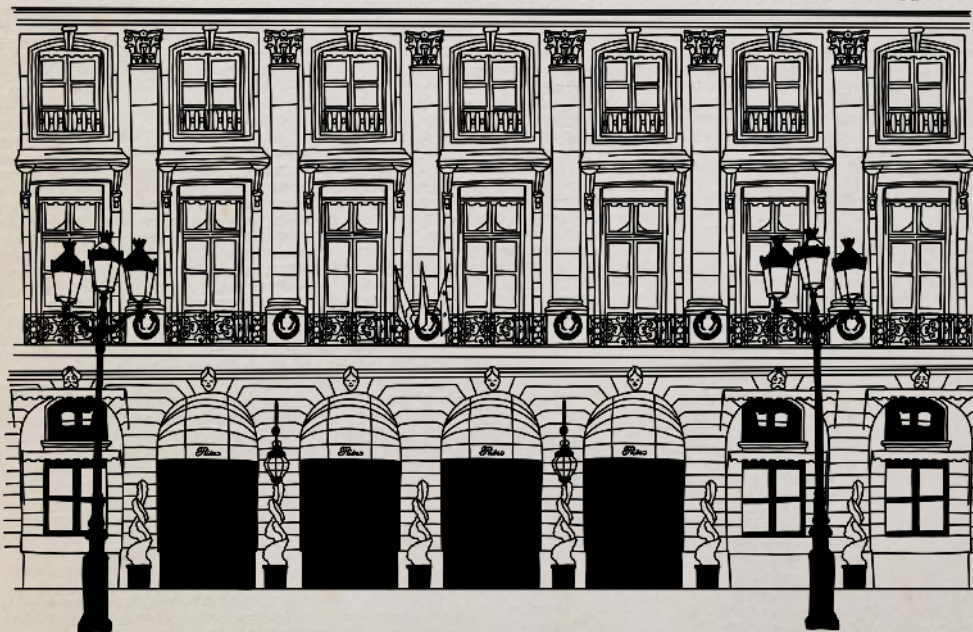


FIG.01

### WHERE TO STAY

You can take your pick from a wealth of glamorous locations, but where better than a place that has become by-word for extravagance, the Ritz. Founded by Swiss businessman César Ritz, a man known as the 'King of Hoteliers', you will not find better food, drink or company in all of Paris. Everyone from Proust to Oscar Wilde can be seen propping up the bar and there is no demand fantastical enough to be denied.

FIG.02



### Dos & don'ts



#### Keep Tuesday's free

On this day each week, Charcot, a psychologist and influence on Freud, hosts the hottest show in town: demonstrations of hysteria in his patients.



#### Attend the World's Fair

Held in 1889 and 1900, you can see the most amazing displays of engineering prowess in the whole world.



#### Take a ride on the Metro

Built by Fulgence Bienvenüe, the new underground system will take you to all the best shows around town.



#### Cheer on Louis Blériot

The first man to fly across the Channel in an aeroplane, Louis Blériot did it in his homemade Type XI, on 25 July 1909.



#### Take it for granted

Although life is good for a select few, the majority of people living in Paris struggle to make ends meet during this time.



#### Attend Stravinsky's Rite Of Spring première

The first performance of Igor Stravinsky's ballet was said to be so shocking it led to a riot, with up to 40 audience members arrested.



#### Play it safe

From feminism to postimpressionism, the Belle Époque is all experimentation.



#### Be a prude

With the opening of the Moulin Rouge, expect a far more provocative night out!



## Time Traveller's Handbook

### BELLE ÉPOQUE

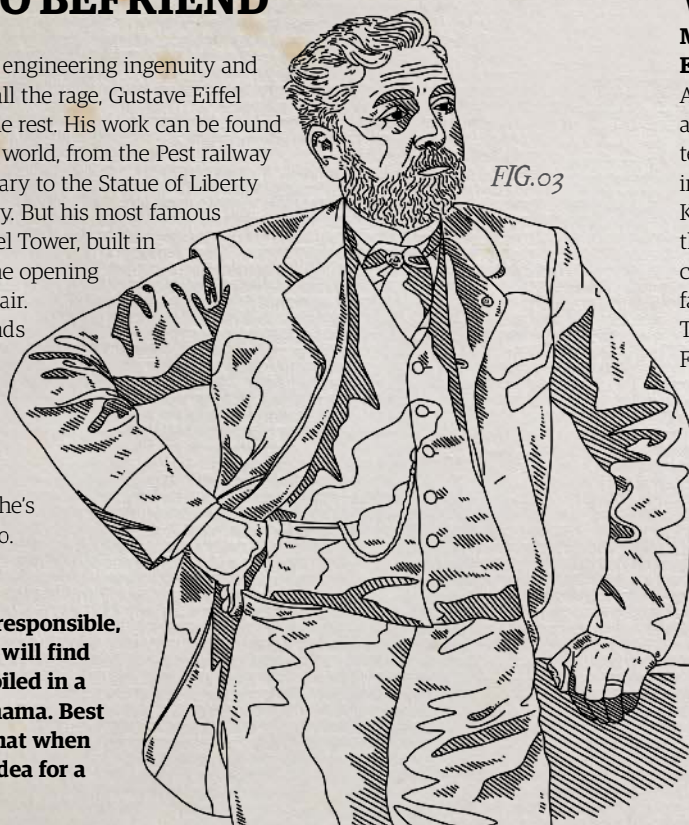
### WHO TO BEFRIEND

#### Gustave Eiffel

In a time when engineering ingenuity and architecture is all the rage, Gustave Eiffel stands above the rest. His work can be found throughout the world, from the Pest railway station in Hungary to the Statue of Liberty in New York City. But his most famous work is the Eiffel Tower, built in 1889 to mark the opening of the World's Fair. The tower stands as a symbol of this time and Paris. If you want to build the next iconic landmark then he's the man to go to.

#### Extra tip:

Although not responsible, Gustave Eiffel will find himself embroiled in a scandal in Panama. Best not mention that when sharing your idea for a new tower!

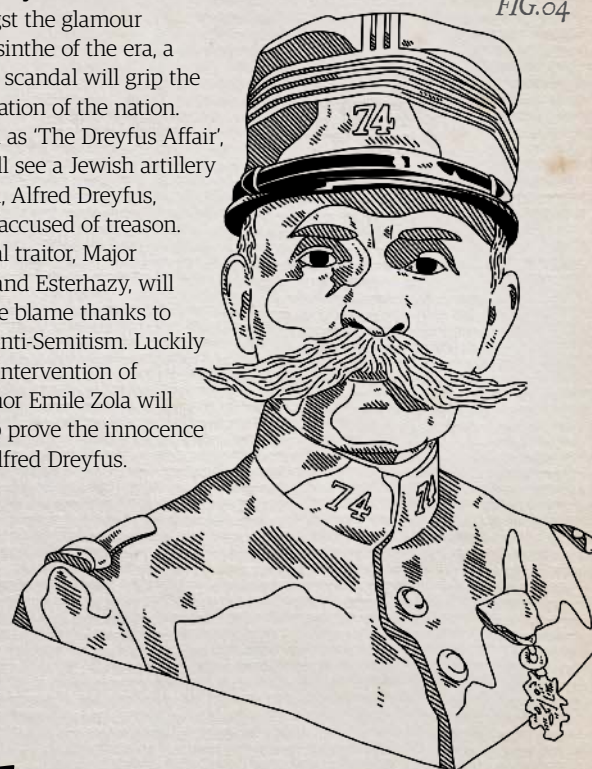


### WHO TO AVOID

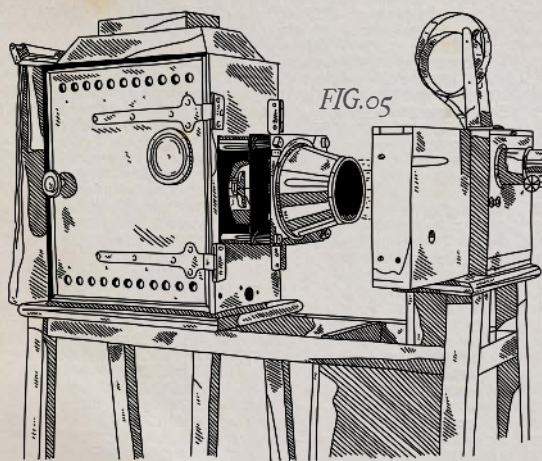
#### Major Ferdinand Walsin

#### Esterhazy

Amongst the glamour and absinthe of the era, a terrible scandal will grip the imagination of the nation. Known as 'The Dreyfus Affair', this will see a Jewish artillery captain, Alfred Dreyfus, falsely accused of treason. The real traitor, Major Ferdinand Esterhazy, will escape blame thanks to rife anti-Semitism. Luckily the intervention of author Emile Zola will help prove the innocence of Alfred Dreyfus.



## Helpful skills



#### Cinematography

Get in on the ground floor of filmmaking by offering your services to brothers Auguste and Louis Lumière, who invented the cinematograph camera in 1885. Their first movie premiered the same year.

#### Drinking

Absinthe is the drink of choice in the fashionable cafes. What better way to summon the inner muse than by raising a glass of the green fairy at five o'clock, a time known as the green hour in Paris.



#### Painting

Everyone is an artist or wants to be an artist in these liberating days. Whether you are feeling 'blue' like Picasso or experimenting like Matisse, being able to hold a brush will make you friends and money.



# Greatest Battles



## Attack the block

As well as digging trenches and laying barbed wire, the Spanish turned a blockhouse on the crest of San Juan Hill into a stronghold. While the Americans targeted it with their artillery, Spanish forces were able to defend themselves from this building until the very end.

## Bloody clash

With over 1,000 Americans killed, injured or gone missing during the Battle of San Juan Heights, the conflict accounted for 80 per cent of US battle casualties during the entire Spanish-American War.

## Buffalo Soldiers

Participating in some of the heaviest fighting of this decisive American victory were the 10th Cavalry, a segregated African-American regiment famously known as the Buffalo Soldiers. One of their white officers at San Juan Hill, John Pershing, would later be promoted to commander of US forces in World War I.



### Dismounted cavalry

Due to a lack of military transport, the Americans were forced to leave most of their horses at home, so most cavalrymen - including Roosevelt's Rough Riders - had to fight on foot.



# SAN JUAN HEIGHTS

CUBA, 1 JULY 1898

Written by Jack Parsons

The inky black sky over Havana harbour erupted with fire when the US battleship Maine blew up at 9.40pm on 15 February 1898. While not playing an active role in the Cuban independence movement, the ship had been sent to protect American interests on the island from the growing conflict between guerrilla fighters and the Spanish. The explosion ripped out the anchored ship's bottom, sinking it and killing more than 260 sailors onboard; almost two-thirds of the crew. In the morning only the mangled wreckage of the colossal warship's mast and bow could be seen poking out of the water.

Today we know the blast was most likely an unfortunate tragedy, caused by a fire in the ship's coal bunker, which ignited gunpowder magazines. An inquiry by the US Navy at the time suspected an underwater mine, though they pointedly wouldn't name the aggressor who had planted it, concluding they were "unable to obtain evidence fixing the responsibility for the destruction of the Maine upon any person or persons".

However, by the time the report was published in March, most Americans had already blamed Spain. "Spanish Treachery," declared William Randolph Hearst's *New York Journal* the day after the attack. Other newspapers followed suit, promoting the battle cry, "Remember the Maine. To Hell with Spain!"

Despite being part of President McKinley's government, Assistant Secretary of the Navy Theodore Roosevelt joined hawkish Democrat senators in condemning McKinley's attempts to cool the burgeoning diplomatic crisis. However, in a move that is as shocking today as it was then,

when the US eventually declared war on Spain in April, Roosevelt resigned his post to go off and fight. He formed the 1st Volunteer Cavalry, which quickly became known as the Rough Riders for its flamboyant mix of Western cowboys and adventurous east coast blue bloods.

On 22 June 1898, Roosevelt's Rough Riders disembarked in Daiquiri on the southwest coast of Cuba, where they joined the US Army Fifth Corps. Led by Major General William Shafter, the aim was to capture Santiago de Cuba, the island's second largest city, where Spanish General Arsenio Linares y Pombo commanded more than 10,000 troops and a naval squadron, which lay at anchor in the harbour. However, to do that they had to mount an expedition through the jungle and make their way up San Juan Heights, a high ground made up of San Juan Hill and Kettle Hill, which Linares had reinforced with 500 men.

The Battle of San Juan Heights was the bloodiest clash of the Spanish-American War, but the US victory sealed the fate of Santiago. This prompted the naval squadron resting there to flee, where they ran straight into a blockade of superior US battleships, denying Spain of much-needed gunboats. The "splendid little war" only lasted four months, but left the Spanish Empire devastated, forced to surrender Puerto Rico, Guam and the Philippines to the ascendant US.

While it could be argued the predominantly black Buffalo Soldier regiment actually did much of the heaviest fighting, media reports of San Juan Heights made the Rough Riders national heroes, setting Roosevelt on the path to becoming in the 26th US President in 1901.

### Uphill struggle

The San Juan Heights were part of a ring of hills that protected the Spanish-controlled city of Santiago. The heights consisted of two hills - known as San Juan and Kettle - divided by a valley. To reach the heights, the Americans had to travel through miles of jungle.



# Greatest Battles



## United States

**INFANTRY** 12,665  
**CAVALRY** 2,300  
**ARTILLERY** 37



### MAJOR GENERAL WILLIAM SHAFTER

#### LEADER

While Shafter won a Medal of Honor during the American Civil War, the best days were arguably behind this plump 63 year old.

**Strengths** Experienced general, superior fighting numbers

**Weaknesses** Suffered from illness, flawed strategy, poor communication



### ROUGH RIDERS

#### KEY UNIT

While their influence has been exaggerated, this band of 595 cowboys led by Theodore Roosevelt helped capture both hills.

**Strengths** Experienced fighters, Western cowboys used to the heat

**Weakness** Due to disorganised naval transport the majority of cavalry lacked horses



### GATLING GUNS

#### KEY WEAPON

Star of America's artillery, three of these were used at San Juan Hill, firing 18,000 rounds in less than ten minutes.

**Strengths** Provided uphill charges with cover fire, intimidated Spaniards

**Weakness** The Gatling gun detachment were ad hoc, with improper training

## 01 The hills have eyes

Only a thin line of 800 Spanish infantrymen stood between the Americans and the city of Santiago, but they controlled the higher ground, spread out across the San Juan Heights – made up of San Juan Hill and Kettle Hill. Capable of seeing the Americans approach, the Spanish dug in deep, armed with rifles and cannons, and littered the hillside with barbed wire.

## 04 Grime's Battery

At 8am, American artillery directed by Captain GS Grimes fired at San Juan Hill. Unfortunately, thick smoke from the black powder charges used by the guns revealed their location, and they were ordered to stop when the Spanish launched counter-battery fire to protect the men around them.

## 05 In Hell's Pocket

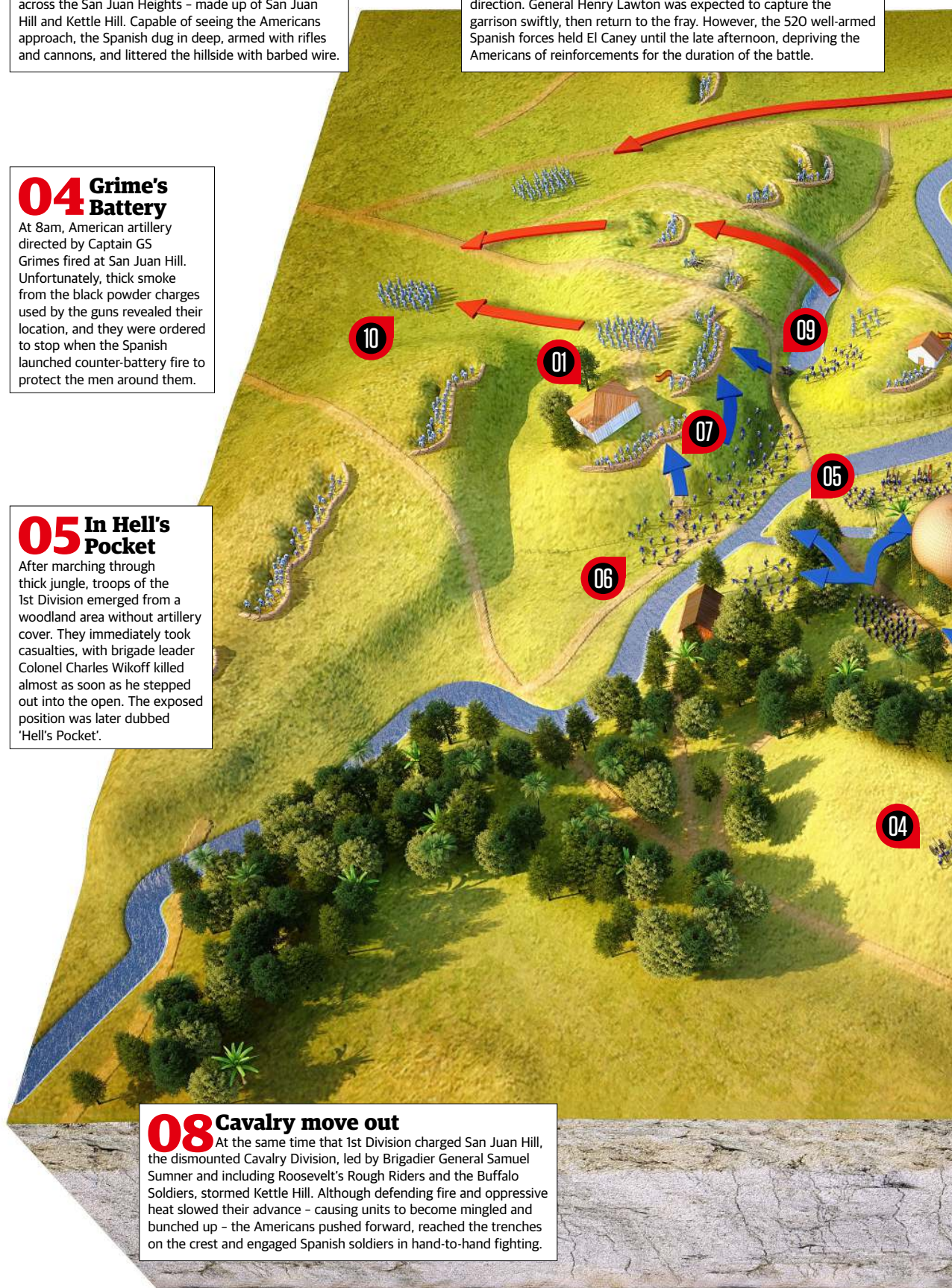
After marching through thick jungle, troops of the 1st Division emerged from a woodland area without artillery cover. They immediately took casualties, with brigade leader Colonel Charles Wikoff killed almost as soon as he stepped out into the open. The exposed position was later dubbed 'Hell's Pocket'.

## 08 Cavalry move out

At the same time that 1st Division charged San Juan Hill, the dismounted Cavalry Division, led by Brigadier General Samuel Sumner and including Roosevelt's Rough Riders and the Buffalo Soldiers, stormed Kettle Hill. Although defending fire and oppressive heat slowed their advance – causing units to become mingled and bunched up – the Americans pushed forward, reached the trenches on the crest and engaged Spanish soldiers in hand-to-hand fighting.

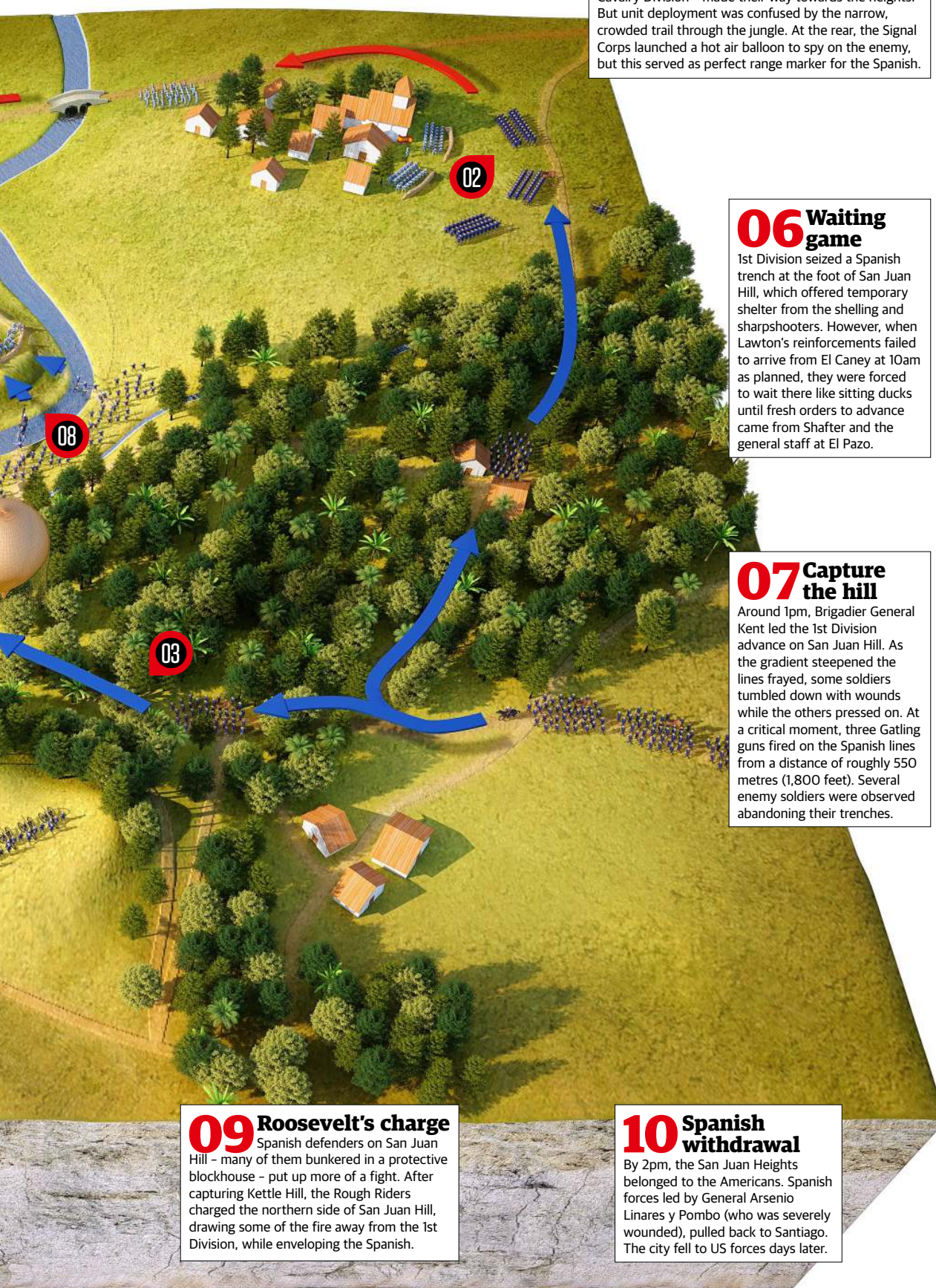
## 02 Distraction at El Caney

Fearing that a Spanish garrison at El Caney might come to their countrymen's aid, Commander Shafter began his assault on the heights by sending 6,000 American troops two miles in the opposite direction. General Henry Lawton was expected to capture the garrison swiftly, then return to the fray. However, the 520 well-armed Spanish forces held El Caney until the late afternoon, depriving the Americans of reinforcements for the duration of the battle.





# San Juan Heights



**03 The slow march to war**  
While the action raged at El Caney, more than 8,000 Americans – making up the 1st Division and Cavalry Division – made their way towards the heights. But unit deployment was confused by the narrow, crowded trail through the jungle. At the rear, the Signal Corps launched a hot air balloon to spy on the enemy, but this served as perfect range marker for the Spanish.

**06 Waiting game**  
1st Division seized a Spanish trench at the foot of San Juan Hill, which offered temporary shelter from the shelling and sharpshooters. However, when Lawton's reinforcements failed to arrive from El Caney at 10am as planned, they were forced to wait there like sitting ducks until fresh orders to advance came from Shafter and the general staff at El Pazo.

**07 Capture the hill**  
Around 1pm, Brigadier General Kent led the 1st Division advance on San Juan Hill. As the gradient steepened the lines frayed, some soldiers tumbled down with wounds while the others pressed on. At a critical moment, three Gatling guns fired on the Spanish lines from a distance of roughly 550 metres (1,800 feet). Several enemy soldiers were observed abandoning their trenches.

**09 Roosevelt's charge**  
Spanish defenders on San Juan Hill – many of them bunkered in a protective blockhouse – put up more of a fight. After capturing Kettle Hill, the Rough Riders charged the northern side of San Juan Hill, drawing some of the fire away from the 1st Division, while enveloping the Spanish.

**10 Spanish withdrawal**  
By 2pm, the San Juan Heights belonged to the Americans. Spanish forces led by General Arsenio Linares y Pombo (who was severely wounded), pulled back to Santiago. The city fell to US forces days later.



## Spain

**INFANTRY** 1,320  
**CAVALRY** 0  
**ARTILLERY** 12



## GENERAL ARSENIO LINARES Y POMBO

### LEADER

This Valencia-born veteran had fought in the Carlist Wars in Spain and spent years putting down insurgencies in Cuba.

**Strengths** Experienced general, familiar with the terrain

**Weakness** Failed to reinforce lines of defence with adequate troops



## SPANISH INFANTRY

### KEY UNIT

Despite being vastly outnumbered, the seasoned Spaniards fought hard and bravely in defence of the heights.

**Strengths** Deeply entrenched, controlled higher ground, superior firepower

**Weakness** Limited numbers meant they could not stymie American forces



## MAUSER MODEL 1893 RIFLE

### KEY WEAPON

Nicknamed the 'Spanish Hornet', this cutting-edge bolt-action rifle gave the Spanish a much-needed advantage over the larger American force.

**Strengths** Extremely accurate, quick reload, smokeless so gunman's location couldn't be pinpointed

**Weakness** Setting a new standard for rifles, it didn't really have any flaws – though it was expensive



# FEED YOUR MIND

[www.howitworksdaily.com](http://www.howitworksdaily.com)



# HOW IT WORKS™

ON SALE NOW

• SEARCH AND RESCUE TECH • TOUCHING THE SUN • JANE GOODALL

## SCIENCE UP CLOSE



## INSIDE GADGETS



## COOLEST TECH



## ILLUSTRATIONS



## AMAZING FACTS



# BUY YOUR ISSUE TODAY

Print edition available at [www.myfavouritemagazines.co.uk](http://www.myfavouritemagazines.co.uk)

Digital edition available at [www.greatdigitalmags.com](http://www.greatdigitalmags.com)

Available on the following platforms



facebook.com/howitworks



twitter.com/@howitworksmag



# On the Menu CHINESE MOONCAKE

## Did you know?

According to legend, in 1368, rebels hid messages in mooncakes as part of a plot to overthrow the Mongolian Empire in China

## Ingredients

### For the Pastry

- 250g golden syrup
- 80g vegetable oil
- 8g lye water (alkaline water)
- 360g all-purpose flour

### For the Filling

- 1kg lotus seed paste
- 50g melon seeds
- 9 salted egg yolks
- 1 beaten egg yolk and 1 tbsp water (for the egg wash)

## OUT OF THIS WORLD HARVEST TREAT CHINA, 17TH CENTURY BCE

The Mid-Autumn Festival is held in East Asia on the fifteenth day of the eighth month of the lunar calendar, which this year takes place on Monday 24 September. This annual celebration will see families gather together to eat dinner together and gaze at the full moon. For dessert, they will also enjoy 'mooncakes'.

Mooncakes are believed to be as old as the deeply-rooted cultural festival itself, which originated in China around 1600 BCE, during the Shang dynasty. Traditionally a harvest festival, the rice crop had to be gathered by the day of the celebration, with rice parcels then offered in thanks to the lunar deity Chang'e.

Mooncakes are made from pastry with fillings that can range from red bean, date or lotus seed paste or even whole egg yolks, depending on the region in which they are made. Perhaps unsurprisingly, they are typically circular in shape to symbolise the moon. They are also imprinted with either Chinese characters or a chrysanthemum pattern. Today boxes of mooncakes are often given to family and friends as a gift, up to two weeks before the festival.

## METHOD

- 01** To make nine mooncakes, start with pastry. Take a large bowl and add the golden syrup, vegetable oil and lye water and whisk until they are mixed together.
- 02** Add 240g of the all-purpose flour and carefully stir to combine all the ingredients. Cover the bowl with cling film and leave for four hours.
- 03** Preheat the oven to 175°C. If you haven't done so already, peel and rinse the salted eggs before carefully removing the whole yolks. Place the yolks on a baking tray and put them in the oven for five minutes.
- 04** Spread the melon seeds onto a baking tray, put them in the oven for five minutes. Then mix the roasted seeds and the lotus paste together until the two are combined.
- 05** Roll the lotus paste into a log and divide into nine equal pieces, rolling them into balls. Taking the pastry dough from earlier, add the remaining 120g of all-purpose flour and gently knead until it has all combined. Divide the dough into nine equal pieces and roll each one into a ball.
- 06** Take a lotus paste ball and poke a hole in the middle with your finger, placing an egg yolk inside. Cover the yolk completely and reshape the paste into a ball. Flatten a dough ball onto your hand wrap the lotus filling with it. Repeat this until all nine balls are complete.
- 07** Dust some flour into the mould and stuff a mooncake ball into it. Turn the mould upright and press down on the handle. Remove the mould, using the plunger to push the mooncake out. Repeat the process until all nine mooncakes are done.
- 08** Preheat the oven to 200°C. Place the mooncakes on a tray lined with baking paper and bake for ten minutes in the oven. When they are done, put the mooncakes on a wire rack to cool for five minutes.
- 09** Taking the egg wash, brush the top of the mooncakes thoroughly and then place them back in the oven for another ten minutes, or until they are golden brown. Best served while sipping tea and gazing at a full moon.



# REVIEWS

The books, TV shows and films causing a stir in the history world this month

## ROBERT GRAVES



A new biography pins down the war poet's elusive character

**Author** Jean Moorcroft Wilson **Publisher** Bloomsbury Continuum **Price** £25 **Released** Out now

**R**obert Graves is celebrated to this day as the author of *Good-bye To All That*, his unflinching and bestselling memoir of World War I.

After his death, Graves's son reprinted his father's war poetry, sealing his already formidable reputation as one of the foremost

chroniclers of the Great War. Yet the man behind the writing has remained elusive until now.

Jean Moorcroft Wilson's new biography, *Robert Graves: From Great War Poet To Good-bye To All That* attempts to tease out the writer behind the stories. To say that it succeeds would be an understatement. The memoirs that made Graves's

name earned him the ire of his one-time friends and comrades-in-arms, Siegfried Sassoon and Edmund Blunden. The two men famously annotated their own copies of the book, ruthlessly correcting the inaccuracies they found and presenting a far different truth to that which Graves was selling. Sassoon kept a second copy of *Good-bye To All That*, annotated with far less delicacy. Even the title "was rot", he noted. This wasn't a memoir, but a collection of bedtime stories.

As Sassoon's biographer too, Wilson is uniquely placed to use the former's observations as the basis for a reappraisal of the latter. Plunging into the heroic fiction of Graves's version of the facts, she uncovers a man who was far more complex and difficult than his writings reveal.

With an Irish father and a strictly religious German mother, Graves was always acutely aware of the challenges he would face

fitting in. During his years at Charterhouse he developed a streak of physical aggression to deal with bullies, revelling in competition and victory whether in the boxing ring or the classroom. Rather less easy to deal with was his burgeoning homosexuality, at odds with the thin-lipped chastity encouraged at home.

When Graves left school he went straight into the trenches, where he was soon consuming a bottle of whisky a day. After he sustained serious injuries in battle his families received a telegram announcing his death. The erroneous report was repeated in *The Times*.

Graves returned to England to become a husband and father, scraping a living where he could whilst writing poetry.

The impetus for *Good-bye To All That* was financial. His lover had attempted suicide and Graves needed to pay her medical bills.

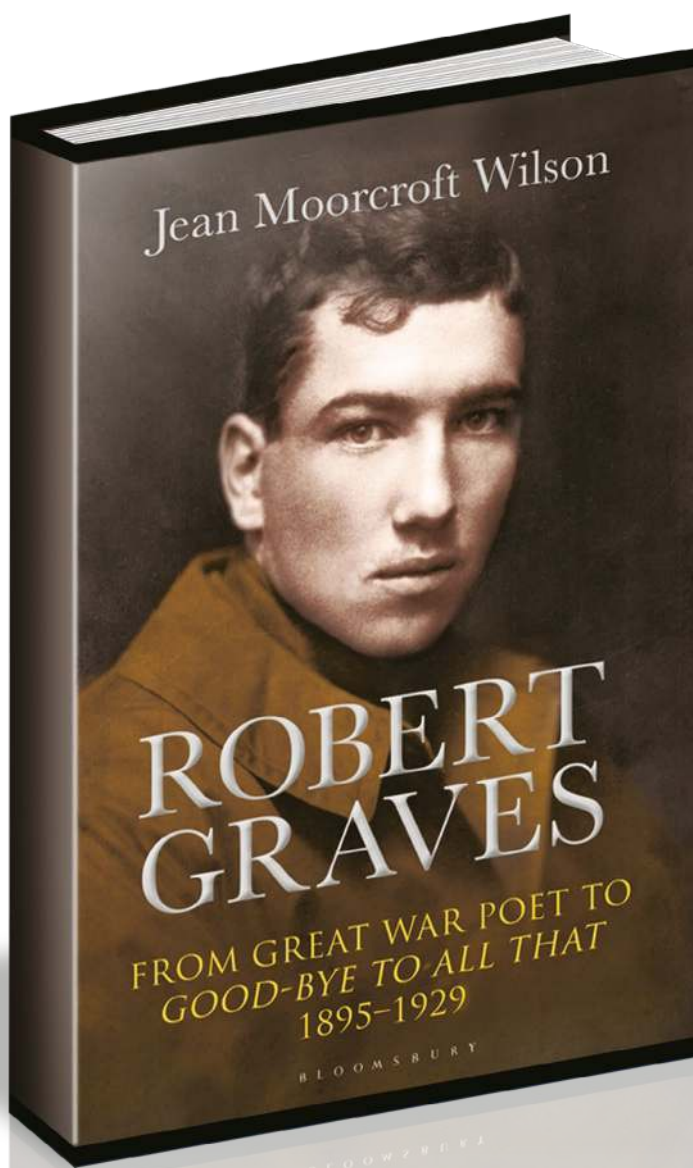
Graves made enemies easily and rewrote his own history to suit the narrative he preferred. Wilson reconstructs that history and in doing so uncovers a man of contradictions whose troublesome relationship with his father coloured his whole life. Wilson's portrait of Graves is only enhanced by her sensitive analysis of his work, lending new insight into a man who was difficult to know.

Robert Graves was filled with delirious, sometimes devastating energy, and Wilson captures this essence with all the skill of a magician, building a picture of a man who rarely allowed anyone to see beneath his carefully constructed mask.

Rarely does one succeed in so capturing the truth of such a slippery character, yet Wilson does so with sensitivity, humour and an unflinching eye for the truth. This book is indispensable.

**This exhaustive, insightful examination of Robert Graves and his literary works is essential reading.**

Essential,  
Exhaustive,  
Commanding  
CC







Book



TV



Podcast



Film



Games



Other

Reviews by

Catherine Curzon, Erlingur Einarsson, Esther Smith and Robert Lock

**Celebrate 60 years of exploring space**

Between 2018 and 2022, the National Aeronautics and Space Administration – better known the world over as NASA – is marking a series of important milestones. This includes the 60th anniversary of the agency's founding by congress in 1958, and the 50th anniversary of the Apollo missions that put a dozen Americans on the moon between 1969 and 1972. Explore the incredible story of triumph, tragedy, indomitable ambition and the search for the secrets of the universe in our new in-depth guide, *History Of NASA*.

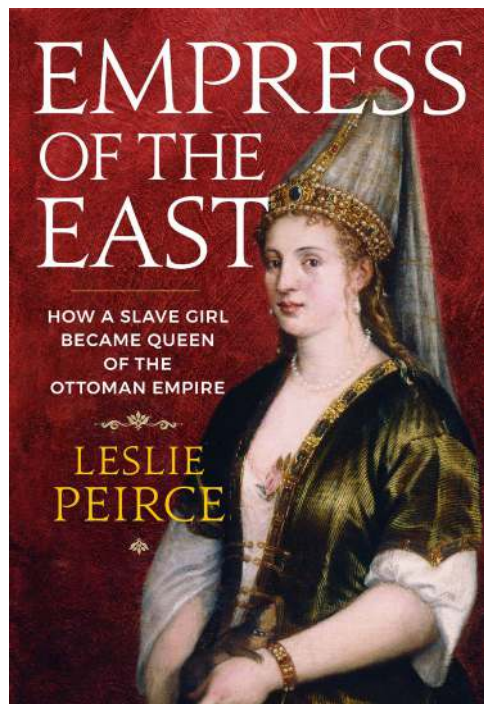


**Out now!**

This includes background on the Space Race, Neil Armstrong's moonwalk, the more recent unmanned mission to Mars and beyond, plus how NASA's innovations have changed life on Earth.

Buy *History Of NASA* in shops or online at [myfavouritemagazines.com](http://myfavouritemagazines.com)  
Price: £9.99

# EMPRESS OF THE EAST



How a 16th-century Christian concubine transformed the Ottoman Empire

**Author** Leslie Peirce **Publisher** Icon Books **Price** £20 **Released** 13 September

The extraordinary story of Roxelana would be dismissed as too fantastical if it was proposed as a romantic novel. Abducted by slave traders from her home in modern-day Ukraine in 1515, a teenage Roxelana was taken to Constantinople and trained as a concubine in the sultan's palace harem.

Here, the mighty Suleiman the Magnificent fell in love with the slave girl, freeing her and marrying her, making Roxelana queen of one of the 16th century's greatest empires.

In *Empress Of The East*, Leslie Peirce – until recently a professor of history and Islamic studies at New York University – constructs an evocative narrative around the slave girl who became a queen, drawing on contemporary accounts ranging from European diplomatic dispatches to even the royal account books. Peirce also provides insightful background on how harems traditionally worked

and how Suleiman's rejection of all other concubines in favour of Roxelana upended tradition. For those unfamiliar with the Ottoman sultan, Peirce brings to life Suleiman's many military campaigns, including his incursions into Europe and clash with the Holy Roman Emperor Charles V.

While critics at the time portrayed Roxelana as a seductress who brought ruin to the Ottoman Empire, Peirce makes a compelling case in *Empress of the East* that not only was the couple's marriage a true love match, the queen transformed the Ottoman harem into an institution of imperial rule.

Acting as a shrewd diplomat and philanthropist, Roxelana also helped Suleiman keep pace with a changing world in which women – such as Catherine de Medici or Isabella of Hungary – were increasingly close to power.



# BATTLES THAT CHANGED HISTORY



A richly-illustrated overview of military history

**Author** DK, foreword by Sir Tony Robinson **Publisher** DK

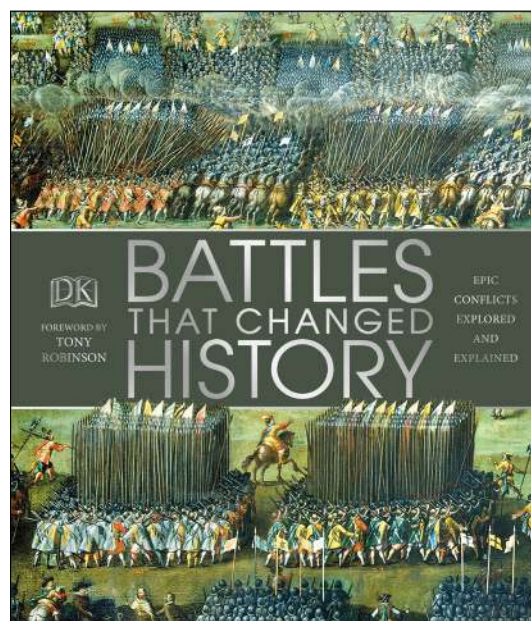
**Price** £20 **Released** Out now

Over the years, DK has almost been the gold standard for illustrated history and science books. Whether it's biology, astronomy, technology or history, few publishers have managed to rival DK's richness of imagery or its ability to make even the most challenging concepts easily digestible for everyday people.

From the gorgeous cover of *Battles That Changed History* and throughout, DK's editors deftly guide us through most of the recorded history of military confrontations, from the war between Ancient Greeks and Persians, and the Punic Wars of the Roman Empire, to the modern wars of Iraq and Afghanistan.

If this feels like well-trodden territory, the resplendent battle maps, lush illustrations and

evocative photography lends each battle and conflict a relevance and deep level of interest to the reader. While many of the excellent illustrations or photographs, especially from the American Civil War, the medieval wars of Europe or the two World Wars, may feel familiar to history enthusiasts, the book truly stands out when it comes to the maps. Any map fan will have an absolute field day with *Battles That Changed History*, as its many sumptuously crafted maps intricately detail the battles in question with beautiful clarity. This is without a doubt one of DK's finest history offerings in several years.







## HISTORY WAR RECOMMENDS...

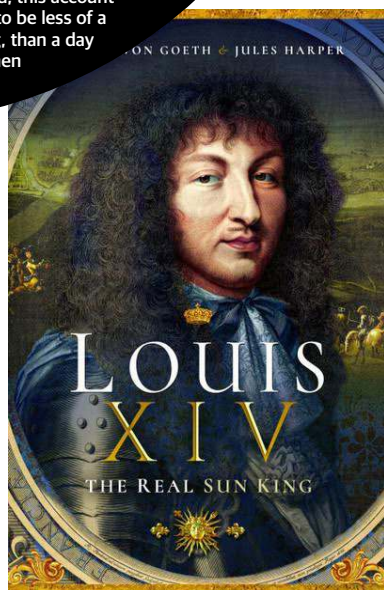
### D-DAY

**Author** Giles Milton **Price** £25  
**Publisher** John Murray

**Out  
now!**

Almost 75 years have passed since Allied forces landed on the beaches of Normandy and turned the tide of World War II. Giles Milton's *D-Day: The Soldiers' Story*, narrates one of history's largest seaborne invasions through the tales of the survivors, including the military architects at Supreme Headquarters, a teenage Allied conscript, a crack German defender, and a French resistance fighter. Raw and unvarnished, this account reveals Operation Overlord to be less of a triumph of strategic planning, than a day when thousands of young men stared death in the face.

"A useful introduction to the life and foibles of this complex man, as well as the major events that shaped his reign and reputation"



# LOUIS XIV: THE REAL SUN KING



A concise guide to France's complex monarch

**Author** Aurora von Goeth & Jules Harper **Publisher** Pen & Sword History

**Price** £15 **Released** Out now

**M**ore than three centuries since his death, Louis XIV has become a legend. In a reign that lasted more than seven decades, the man who became known as the Sun King shaped his opulent court in his own image and with no shortage of mistresses, scandal, war and drama, it's little wonder that his life continues to attract the attention of numerous biographers.

The latest take on Louis is *Louis XIV: The Real Sun King*. Written by Aurora von Goeth and Jules Harper, at less than 150 pages, it's far from an exhaustive biography.

Instead, it's a useful introduction to the life and foibles of this complex man, as well as the major events that shaped his reign and reputation. Von Goethe and Harper spend some time on establishing Louis' antecedents before plunging headlong into his

tumultuous life in a text that's accompanied by some wonderful images, several of which are rarely seen.

Because of its concise size, *Louis XIV* is by necessity something of a gallop through Louis' long life and many loves. There are also all sorts of anecdotes and 'did you know' type facts throughout that complement the accessible, chatty style.

For scholars of the French history and the Sun King's reign, it's likely that this volume will prove somewhat scant but as an introduction to Louis XIV, it makes a quick and entertaining read.

Though far from comprehensive this is an ideal starting point for those readers who are new to the court of the Sun King.



## THE COLOUR OF TIME



A vivid collection of a century in photographs

**Author** Dan Jones & Marina Amaral **Publisher** Apollo **Price:** £25  
**Released** Out now

**B**razilian artist Marina Amaral has become internet famous for her colourised archive photos (sample her work on Twitter @marinamaral2). *The Colour Of Time* collects together iconic shots from the 19th century to the mid-20th century treated by Amaral, while popular historian Dan Jones (author of *The Templars* - see page 39) provides cultural and political context.

The starting point of the book coincides roughly with the advent of the photograph, where the black-and-white images have been carefully rendered into full colour by Amaral. Recolouring techniques have advanced dramatically in recent years and decades, a development that lends portraits of people like Tsar Alexander II, Charles Darwin and Abraham Lincoln a sense

of presence, intimacy and immediacy. The selection of images is also different to the many famous portraits you'll usually encounter. Some offer a warmer, more everyday glance at often-elevated characters, while others subject you to the real horror of war and disasters throughout the 110 years covered in the book. There are some truly graphic images you won't have seen in your usual history literature, but their shock factor thankfully feels measured and deliberate rather than gratuitous.

What also elevates *The Colour Of Time* above regular coffee table fare is the startling vivacity and impact of the photographs chosen, and the concise but focused and gripping texts by Jones, making the book a worthwhile cover-to-cover read as much as it serves as a showcase book to dip into at will.

# The Colour of Time

A New History  
of the World  
1850-1960

Dan Jones & Marina Amaral



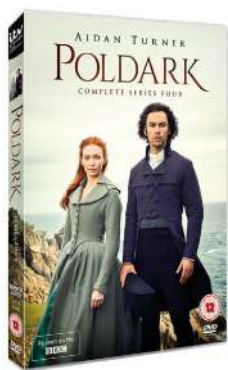




# POLDARK SEASON 4

The Cornish heartthrob heads to Regency London

**Certificate 12** **Creator** Debbie Horsfield **Cast** Aiden Turner, Eleanor Tomlinson, Heida Reed, Jack Farthing, Rebecca Front **Distributor** ITV Global Entertainment **Released** Out now



**T**he life and times of Ross Poldark are fictional, but the Georgian world he inhabits is very real. Over the course of three

previous seasons, the story of a British soldier returning home from the American War of Independence to his native Cornwall has touched on many social issues that defined the era. This has ranged from the rural poor

rioting over the price of grain, the emergence of a nouveau riche bankers and entrepreneurs unsettling the old order, and the political corruption of the 'rotten boroughs'. Even the many trysts that form the beating heart of this bodice-ripper are in line with the scandalous affairs that defined the late 18th century.

Season four of the show gets more overtly political, with the titular Poldark (Aiden Turner) heading off to Westminster, where he meets historic figures including Prime Minister William Pitt and anti-slavery campaigner William Wilberforce. Fortunately, Ross's role as Member of Parliament still affords him ample opportunity to return to the rugged Cornish coastline (the unaccredited star of the show, after all), picking up from the bombshell climax of season three.

First and foremost, Ross and his wife Demelza (Eleanor Tomlinson) are trying to pick up the pieces of their marriage after her dalliance in the sand dunes with a debonair poet. While the pair has weathered similar storms in the past, the will-they-won't-they reunite dilemma runs the course of the season.

Meanwhile, Ross's own erstwhile lover - we did say the show boasted many trysts - Elizabeth Warleggan

(Heida Reed) rejected him in favour of her villainous husband George (Jack Farthing) last series. However, Elizabeth still needs to convince George that her baby is his and not Ross's.

Elizabeth's desperate remedy to prove that eight-month pregnancies are not so unusual for her is ridiculously contrived, but the endlessly talented Reed manages to sell it and, arguably, steal the series.

Elsewhere, the vile Reverend Osborne Whitworth's (Christian Brassington) affair with his wife's sister Rowella (Esme Coy), has given young Morwenna (Elise Chappell) an excuse not to resume their 'conjugal bliss' (as the sex-crazed cleric describes it) as she continue to pine for Demelza's brother, Drake (Harry Richardson). Again, so many trysts. Fortunately, the series also offers new characters in the form of Monk Adderley (Max Bennett), a slippery politician that is an ally of George's, offering Ross a new enemy in the city. Rebecca Front also joins the cast as Lady Whitworth, mother of Osborne, tormentor of Morwenna.

Overall, London serves as a distraction just as Ross sailing off to Revolutionary France did in season three. However, it offers the show an chance to explore the urban workhouses as well as the rural poor.

Arguably, Poldark leans too hard into misery this series. While death and forlorn romance abound, it lacks the usual pastoral celebrations and comedic subplots to balance out the shade with the light. But the season's final denouncement makes it clear that while life can be cruel, love is what makes it worthwhile, going some way to justifying its darker tone and its ever-more complicated liaisons.

**A darker instalment in the brooding drama expands the show's scope beyond Cornwall, without losing its way.**



## HISTORY TALK

Director David Blair discusses how he honoured the Polish pilots that fought for the RAF in the new Battle of Britain blockbuster, *Hurricane*



**Q** What specifically attracted you to telling the story of the Royal Air Force's Polish 303 Squadron?

**A** Self-sacrifice as much as anything. It's one thing to fight for a cause 'in a far-away land' but to do so while all sorts of horrors are taking place back home - of which you're restricted to scant detail - made the story compelling - but heart-breaking too. Having said that, I'm sure what was taking place back in Poland acted as a spur and incentive for these courageous men to keep going.

**Q** When did you first hear about the Polish contribution to the Battle of Britain?

**A** I was unaware of the extent of their contribution. I'd always known there had been Polish pilots involved in the battle but very little detail about their exploits. So, in truth, it was becoming a part of the movie that enlightened me to the true facts.

**Q** Was any part of *Hurricane* shot at the airfield in Northolt, where 303 Squadron was based during the war?

**A** No, none of it was shot at Northolt. We scouted that particular location but it was too far removed from how it looked in 1940 to use it. An authentic Hurricane was used but the battle sequences comprise a combination of the real thing, a full-scale replica on a movable plinth and a grounded cockpit, the latter two with CGI added.

*Hurricane* is released in cinemas and on digital platforms from 7 September.





# THE STORIES, STRATEGIES, HEROES & MACHINES

www.historyanswers.co.uk



# HISTORY of WAR

## ON SALE NOW

Available  
from all good  
newsagents and  
supermarkets

Battle of Britain's Unsung Heroes > Tony Robinson Talks Great Battles > 1918: The Final Push > Defying Hitler – Russian Resistance

GREAT BATTLES

MILITARY MACHINES

HEROES OF WAR

SECRETS & INSIGHT

INCREDIBLE PHOTOS

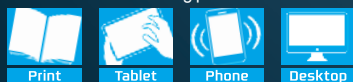


# BUY YOUR ISSUE TODAY

Print edition available at [www.myfavouritemagazines.co.uk](http://www.myfavouritemagazines.co.uk)

Digital edition available at [www.greatdigitalmags.com](http://www.greatdigitalmags.com)

Available on the following platforms



facebook.com/HistoryofWarMag



twitter.com/@HistoryofWarMag



# HISTORY HOLLYWOOD

## Fact versus fiction on the silver screen

### WOMAN IN GOLD

**Director:** Simon Curtis **Starring:** Helen Mirren, Ryan Reynolds, Daniel Brühl, Katie Holmes, Tatiana Maslany, Max Irons **Released:** 2015

Maria Altmann bravely fought Austria to regain her family's stolen masterpieces, but is *Woman In Gold* just as courageous in telling the truth?

 **B+**

**VERDICT** The movie mostly sticks to the facts, with some inaccuracy along the way

**01** The opening scene where the Nazis raid Maria's home in 1938 is accurate and shows them taking far more than just the paintings that belonged to the Bloch-Bauer family. This included the diamond necklace worn by Maria's aunt Adele in the Klimt portrait.



**02** As the movie portrays, the Austrian government denied Maria's claim to the paintings and her legal right to them. It is also true that the filing fee that Maria would have to pay under Austrian law to sue them was over \$1.5 million, which she couldn't afford.



**03** Just like in the movie Maria's lawyer Randy Schoenberg, played by Ryan Reynolds, quit his job so that he could focus solely on Maria's case. He also took the case on with a no win, no fee basis, which proved to be a gamble that handsomely paid off.



**04** Contrary to the film, Maria and her husband Fritz did not escape their Nazi guard while visiting the pharmacy. Instead, they used the excuse that Fritz needed to visit the dentist - in total, the couple attempted to escape three times before they were successful.



**05** Maria's case against the Austrian government did go to the US Supreme Court, which cleared the way for her to sue them. To avoid a court battle she agreed to arbitration in Austria, but the fight between Maria and Randy over the issue in the film is complete fiction.





# NEXT ISSUE

On sale  
11 Oct

## RICHARD III AT WAR

Discover how bloody conflict shaped the life and reign  
of the last English king to die in battle



### NEIL ARMSTRONG BLASTS OFF

How did this American hero become the first man on the Moon?



### THE WOMEN WHO INVENTED GOTHIC LIT

Ten Georgian scream queens that defined literature's spookiest genre



### GILLES DE RAIS: THE REAL BLUEBEARD?

Inside the chilling tale of a French knight turned satanic serial killer

**PLUS** Lawrence of Arabia's Finest Moment, Sparta vs Athens, Josephine Baker: Celebrity Spy, History of Spain, **Rameses II**, Orson Welles's War Of The Worlds Panic

## ALL ABOUT HISTORY

Future Publishing Limited  
Richmond House, 33 Richmond Hill, Bournemouth BH2 6EZ

### Editorial

Editor **Jack Parsons**  
jack.parsons@futurenet.com  
01202 586279

Senior Designer **Abbi Castle**  
Features Editor **Alice Barnes-Brown**  
Staff Writer **Jessica Leggett**  
Production Editor **Tim Empey**  
Group Editor in Chief **James Hoare**  
Senior Art Editor **Duncan Crook**

### Contributors

Edward Armstrong, David Crookes, Catherine Curzon, Nell Darby, Jem Duducu, Dominic Eames, Erlingur Einarsson, Katharine Marsh, Jonathan O'Callaghan, Peter Price, Dom Reseigh-Lincoln, David Williamson

### Cover images

Alamy, Thinkstock, Ian Hinley, Rocio Espin

### Photography and illustration

Alamy, Edward Crooks, Rocio Espin Piña Nicholas Forder, Getty Images, Ian Hinley, Kevin McGovern, Thinkstock, Kym Winters  
All copyrights and trademarks are recognised and respected.

### Advertising

Media packs are available on request  
UK Commercial Director **Clare Dove**

clare.dove@futurenet.com  
Account Manager **Jagdeep Maan**  
jagdeep.maam@futurenet.com  
01225 687353

### International

All About History is available for licensing. Contact the International department to discuss potential partnerships.  
International Licensing Director **Matt Ellis**  
matt.ellis@futurenet.com

### Subscriptions

Email enquiries [contact@myfavouritemagazines.co.uk](mailto:contact@myfavouritemagazines.co.uk)  
Order line & enquiries +44 (0) 344 848 2852  
Online orders & enquiries [www.myfavouritemagazines.co.uk](http://www.myfavouritemagazines.co.uk)  
Group Marketing Director, Magazines & Memberships  
**Sharon Todd**

### Circulation

Head of Newstrade **Tim Mathers**

### Production

Head of Production **Mark Constance**  
Production Project Manager **Clare Scott**  
Advertising Production Manager **Joanne Crosby**  
Digital Editions Controller **Jason Hudson**  
Production Manager **Nola Cokely**

### Management

Chief Operations Officer **Aaron Asadi**  
Commercial Finance Director **Dan Jotcham**  
Group Content Director **Paul Newman**  
Head of Art & Design **Greg Whitaker**

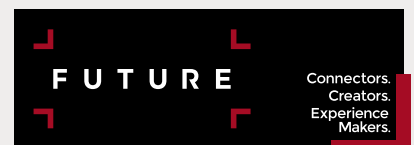
**Printed by** Wyndeham Peterborough, Storey's Bar Road, Peterborough, Cambridgeshire, PE1 5YS

**Distributed by** Marketforce, 5 Churchill Place, Canary Wharf, London, E14 5HU [www.marketforce.co.uk](http://www.marketforce.co.uk) Tel: 0203 787 9060  
ISSN 2052-5870

We are committed to only using magazine paper which is derived from responsibly managed, certified forestry and chlorine-free manufacture. The paper in this magazine was sourced and produced from sustainable managed forests, conforming to strict environmental and socioeconomic standards. The manufacturing paper mill holds full FSC (Forest Stewardship Council) certification and accreditation.

All contents © 2018 Future Publishing Limited or published under licence. All rights reserved. No part of this magazine may be used, stored, transmitted or reproduced in any way without the prior written permission of the publisher. Future Publishing Limited (company number 2008885) is registered in England and Wales. Registered office: Quay House, The Ambury, Bath BA1 1UA. All information contained in this publication is for information only and is, as far as we are aware, correct at the time of going to press. Future cannot accept any responsibility for errors or inaccuracies in such information. You are advised to contact manufacturers and retailers directly with regard to the price of products/services referred to in this publication. Apps and websites mentioned in this publication are not under our control. We are not responsible for their contents or any other changes or updates to them. This magazine is fully independent and not affiliated in any way with the companies mentioned herein.

If you submit material to us, you warrant that you own the material and/or have the necessary rights/permissions to supply the material and you automatically grant Future and its licensees a licence to publish your submission in whole or in part in any/all issues and/or editions of publications, in any format published worldwide and on associated websites, social media channels and associated products. Any material you submit is sent at your own risk and, although every care is taken, neither Future nor its employees, agents, subcontractors or licensees shall be liable for loss or damage. We assume all unsolicited material is for publication unless otherwise stated, and reserve the right to edit, amend, adapt all submissions.



Future plc is a public company quoted on the London Stock Exchange (symbol: FUTR) [www.futureplc.com](http://www.futureplc.com)

Chief executive **Zillah Byng-Thorne**  
Non-executive chairman **Peter Allen**  
Chief financial officer **Penny Ladkin-Brand**

Tel +44 (0)1225 442 244

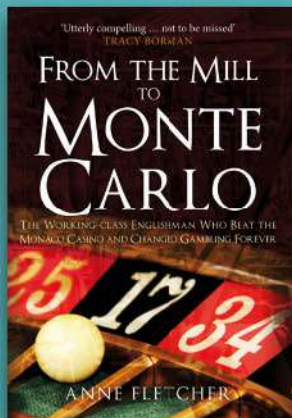
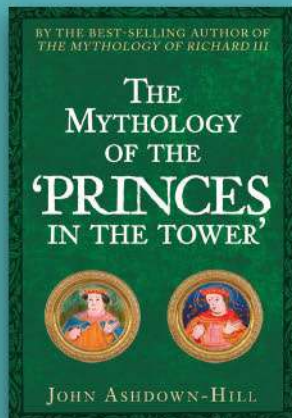
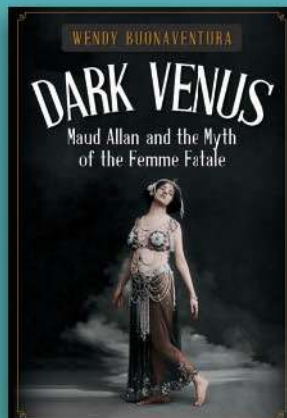
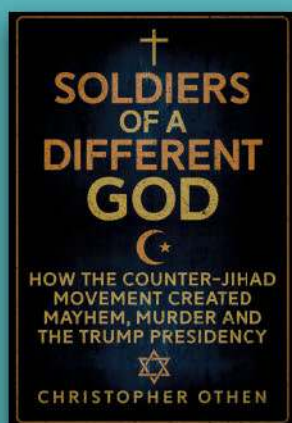
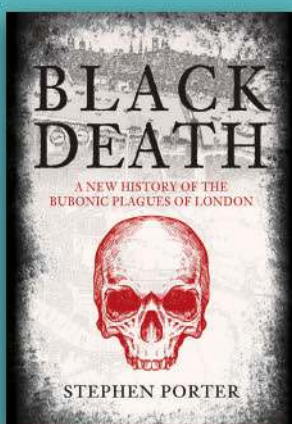
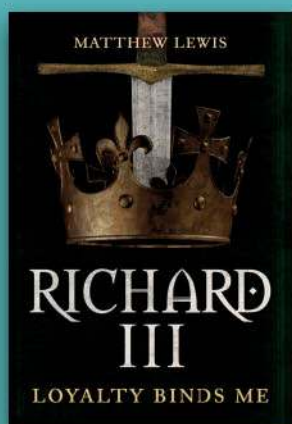
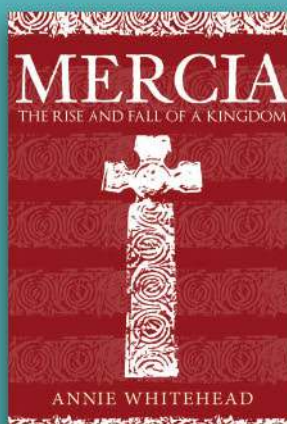
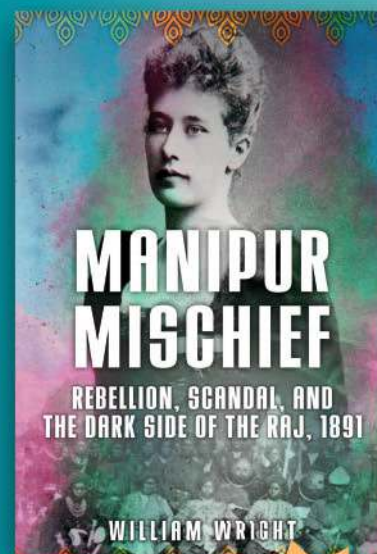


# NEW RELEASES FROM AMBERLEY PUBLISHING

SPECIAL OFFER

RECEIVE  
**20% OFF**

VALID SEP- NOV 2018

USE CODE:  
**AAH09\***9781445671390  
Hardback **£20.00**9781445679419  
Hardback **£20.00**9781445677514  
Hardback **£20.00**9781445681313  
Hardback **£18.99**9781445677996  
Hardback **£18.99**9781445675602  
Hardback **£20.00**9781445656854  
Hardback **£25.00**9781445671543  
Hardback **£25.00**9781445676524  
Hardback **£20.00**9781445671833  
Hardback  
**£18.99**STAR  
BOOK

Available in all  
good bookshops.  
Also available in  
Kindle, Kobo  
and iBook.

\* Code only valid when  
you order directly from  
Amberley online. FREE  
postage in mainland  
UK only.



@amberleybooks

facebook.com/amberleybooks

Leading the way  
with History.

E. sales@amberley-books.com T. +44 01453 847800

www.amberley-books.com



KING &amp; COUNTRY'S

# Enemies of Rome

RnB002



RnB008



RnB004



RnB009X



RnB003



RnB006



RnB007



RnB001



RnB005



SINCE the launch of our Ancient Rome series in 2017 collectors everywhere have been asking, "Where is the enemy... and who is it going to be?" Well now we can show you...

## CELTS, BRITONS & GAULS

Seen here are just a few of the 'sworn enemies of the Roman Empire' that will be available soon from King & Country direct and our K&C dealers around the world.

Some of these warriors have already fallen into Roman hands while others prepare to fight another day. One Legionary has even taken one of the 'locals' as a wife! Soon we will show you many more Celts, Britons and Gauls in a much more aggressive and fighting mood.

So, like the Romans themselves... Watch out for them!


**KING & COUNTRY**
**AUTHENTIC HAND-MADE HISTORY**

Available around the world wherever fine quality military miniatures are sold.

### KING & COUNTRY HEADQUARTERS

Suite 2301, 23rd Floor, No.3 Lockhart Road,  
Wanchai, Hong Kong  
Tel : (852) 2861 3450 Fax : (852) 2861 3806  
E-mail : sales@kingandcountry.com

### KING & COUNTRY SHOP

245, Pacific Place, 88 Queensway,  
Hong Kong  
Tel : (852) 2525 8603  
Website : www.kingandcountry.com

### KINGS X

206 Alamo Plaza, San Antonio, TX 78205, USA  
Tel : (210) 226 7000 Fax : (210) 226 7117  
E-mail : sales@kingsx.com  
Website : www.kingsx.com